

HISTORY OF
THE SECOND WORLD WAR
UNITED KINGDOM CIVIL SERIES

Edited by SIR KEITH HANCOCK

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BRITISH WAR ECONOMY

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P R E F A C E

THIS preface introduces not only the present volume but also the entire series of 'civil histories'. The name was given to the series in 1942, to distinguish it from the military histories and from any other official series—diplomatic, for example—that might be planned. The civil histories are a United Kingdom series. Almost the whole British Commonwealth was at war from September 1939 until the end; but the war histories of the Dominions cannot be written from London sources. Official history must follow (it may be hoped not too slavishly) the paths of national sovereignty.

The scope of the civil histories is roughly co-terminous with the war-time activities and interests of all the departments of government except the three Service Departments and the Foreign Office. This does not, of course, mean that every significant activity of all these departments has been given a place in the editor's plan. Still less does it mean that the subjects selected for historical investigation have been treated from a narrow departmental point of view. The perspective extends beyond Whitehall.

The historians who have collaborated in this series were never members of separate departmental establishments. Although the majority of them worked in the departments where the bulk of their specialist material was to be found, they were members of a single team. Indeed, the scope and method of their work were from very early days determined by a fundamental editorial decision—to write the history, not of departments but of subjects. The following subjects were chosen for investigation:

- War Production
- Civil Industry and Commerce
- Financial Policy
- Manpower
- Shipping
- Land Transport
- Food Policy
- Agriculture
- Fuel and Power
- Building
- War-time Social Services (including Education)
- Civil Defence
- Economic Warfare
- Colonial Policy

Some of these subjects are, of course, anchored very closely to the records of individual departments; but there is not one of them that does not contain problems of inter-departmental significance. In the

records of some departments, such as the Ministry of War Transport, there is material for more than one history; conversely, some histories are based on the records of more than one department. An outstanding example is the history of War Production, which is based on the records of four departments, not to mention the other material, governmental and industrial, that its authors have had to handle. This history, itself a series within the larger series, has been from the outset directed by Professor M. M. Postan.

It would have been easy to expand the list of research projects; but the projects actually chosen constituted a programme arduous and ambitious enough for the small band of civil historians. In the parish of the civil histories there were twenty government departments and in some of these departments there were two million files that might contain war-historical evidence. The historians began work in 1942 and for some years there were only ten of them, including the junior research workers. Towards the end of the war a larger establishment was permitted; but, when the war ended, most of the historians returned to their universities. They have, since then, done part-time work on the official histories, particularly in their vacations, with such limited research assistance as could be made available to them. It has been for them all a formidable labour. Indeed, it would have seemed an impossible one, had it not been accepted in the first place as a necessary war task and thereafter sustained with intense concentration of purpose and effort.

It is possible that the published series of civil histories may approach thirty volumes; but there is no certainty that every history that has been planned will be brought to publication. The production of official history, as of other commodities, is necessarily governed by the quantity and quality of the available manpower.

The writers in this series have followed the usual critical methods of professional historians. They have, at the same time, been compelled by the unusual problems confronting them to exercise a good deal of ingenuity in their methods of research. Despite the intimidating bulk of their documentary material, most of them soon discovered that some policies or transactions had left a very imperfect documentary record and sometimes none at all. The fact that they were living in close association with many of the men who had written the documents, or who retained in their memories the knowledge of unrecorded events, has made their labour in some ways heavier, in other ways lighter. Conversations with officials and the comment of experts upon early historical drafts have frequently revealed the inadequacy of the paper evidence and have compelled the historians both to collect new facts and to test new hypotheses; but they have also supplied many useful clues of research, in default of which much time would have been lost in exploring material of minor

significance or testing hypotheses of doubtful relevance. Even so, the historians have been compelled to practise circumspection and discrimination in working from the documentary to the oral evidence and back again; for the official administrator is by his training a person who forgets many things that were once important. The clues he is likely to suggest to the historian are not always the most illuminating ones; nor are they the only ones that are worth investigating.

From 1942 onwards, the editor of the series communicated his plans to an official committee and made periodical reports on the progress of work. He was also supported by the criticism and counsel of an advisory committee of eminent British historians. The aims of the research were clearly defined. Its primary purpose—to quote a phrase that was often used during the war years—was ‘to fund experience for Government use’. This meant that the histories must be critical. To have told a ‘success story’—even when the success had been in the end resplendent—would have been futile and dangerous; the main processes of trial and error had to be revealed. Soundness in factual detail had to be guaranteed by the usual safeguard of precise documentation. Soundness in judgement was no less necessary. This quality is not, of course, the natural endowment of every historian; nor can it be pretended that even the most judicious investigators will of necessity come always to the same conclusions. In the present series, no claim is made to historical infallibility. However, a very persistent effort has been made to eliminate the intrusions of personal caprice and to found the judgements upon firm evidence.

Some freely accepted limitations upon the scope of the histories, have helped to make these aims realisable. The writers have left to future historians those large moral and political issues that put the greatest strain upon contemporary judgement. They have accepted the British convention of an impersonal civil service. They have concerned themselves with the adequacy of means to an end—the winning of the war; they have concentrated their attention upon the salient economic, social and administrative problems of the war without adventuring into the byways of personal character. In prose style their preferences have been sobriety and clarity.

They were under instruction, in the first instance, to prepare their books not for publication but for confidential print. Amidst the stress and danger of the war, they could not otherwise have been granted free access to government records. Moreover, until their work was fairly well advanced, it was impossible to know how much of it would possess sufficient quality to justify publication. After a year or two, those historians who had plainly achieved a good standard were advised to arrange their work in such a way that publication would be orderly and economical, if and when it should be requested. The publication of three volumes, which will be

mentioned below, was approved before the war ended. Since then, other volumes have been approved for publication.

The published volumes will differ in some respects from the earlier drafts. There is, to begin with, the problem of length. The editor feels that the public would not thank him if he permitted the series to grow, as it easily might, to two score volumes or more. Many of the historians have written at very great length and with detailed attention to the technical problems in which departmental experts were immersed during the war; but the educational purpose of publication would be ill served if the published books were overcrowded with detail. Sufficient material exists, for example, for a four- or five-volume account of Food Policy; but it seems better to concentrate upon the main problems and handle them within the compass of two volumes. There will still remain a great deal of material which the Ministry of Food will find useful; this material will be arranged in appendices or supplementary studies available for official use.

There are some topics or details which cannot be included in the published histories. As has been already explained, the historians have respected those conventions of government that are an essential part of the constitution—for example, the impersonality of the civil service and the collective responsibility of the Cabinet. There are, besides, some topics, chiefly of a diplomatic character, which at this close proximity of time need to be handled with restraint. Fortunately, within the sphere of the civil histories, such topics are the exceptional and usually the less important ones. In volumes which are for the most part devoted to problems of national economy and administration, there is very little information that cannot be frankly and fully divulged.

The preface to each published volume will give a precise definition of its scope. Within the defined scope, each historian is free to handle, to the best of his own capacity, all his main problems.

Considerable thought has been given to documentation. It has been decided not to clutter the published pages with references to official files which are not yet generally available to students. In the published series, footnotes have been confined to material that is already accessible. The complete documentation has been given in confidential print. There it will be immediately available to critical readers within the government service. No doubt it will become available in due time to the historians of a future generation. The official historians of this generation have consciously submitted their work to the professional verdict of the future.

* * *

Fuller information about the making of the series, if it should be demanded, will find its proper place in a professional periodical.

This preface must now explain how the present book has been made.

As the end of the war came into sight a strong appeal was made to the official historians to lose no time in preparing books which would explain to the general public how the war had been fought. The advisory committee of historians wanted a 'general history' which would link diplomatic, military and economic policies and events. But research was too little advanced for so ambitious a synthesis; a premature attempt to fuse the three elements would instead have confused them. On the military side, where the first volume of official history was not as yet even in distant view, it was decided to authorise for early publication some 'preliminary' volumes which would not claim the official stamp. On the civil side research was further advanced. Although much still remained undone, the editor decided to accept the risk of authorising for early publication three official volumes. These three were called, at that time, 'the synoptic volumes'. It was their purpose broadly to survey the field in which the combined team of civil historians was still pursuing its specialist investigations.

Ideally, it might have been better to plan one synoptic volume instead of three. But the field of the civil histories was so wide that a single volume, endeavouring at so early a stage to cover the whole of it, would have been foredoomed to superficiality. On the other hand, the proposed division did seem to offer a reasonable compromise between concreteness and comprehensiveness. The problems of war-time social policy stood clearly defined and were entrusted to Mr. R. M. Titmuss. Professor M. M. Postan agreed to write a book which would be the first volume in his particular series and would at the same time offer an overall view of British war production. The editor undertook to write a history broadly covering the development of the British war economy as a whole. As a companion to this history a statistical digest of the war was commissioned from the Central Statistical Office.

Even when the field had been thus divided, the editor of the series found his new commitment of authorship a heavy one, particularly as he was within a few months recalled to his university duties. But he had the good fortune to find a colleague. The 'we' which will be used in subsequent paragraphs is not merely editorial, but the acknowledgement of a partnership.

We have assumed that war economies are forged in order to win wars. The war economy with which we in this book are concerned is rooted in the war which the British people began to fight in September 1939, when they were but half prepared, and continued to fight until the culminating victories of 1945. We are not writing a dissertation upon the problems of war economy in general. Nor have we allowed ourselves to be tempted into hypothetical reconstructions of

the economic problems that might have arisen if circumstances had been different—if, say, lend-lease had come earlier or not at all, or if the Munitions Assignment Board in Washington had been able in 1942 to raise its horizon more than a few weeks ahead. It is possible to imagine many different divisions of economic effort between the United Kingdom and the United States; we have restricted ourselves, in this context as in all others, to explaining the economic effort to which the United Kingdom was in fact committed by the basic decisions of policy and strategy.

We have divided our history into broad periods of strategical significance. Some economists might have preferred us to follow the main economic problems straight through, and it is indeed true that many of them have a continuity which takes small account of strategical landmarks. But we are on balance convinced that our arrangement is right. We have not allowed ourselves to forget that there will be published later on a parallel series of military histories, whose authors will have to reckon in each strategical period with the fighting power generated in the war economy. We must, so far as possible, consult the interests of our military colleagues. But we have consulted our own interests also. After all, great military events such as the fall of France, Pearl Harbour and the invasion of Normandy produced great consequences in the economic sphere.

When we had accepted the strategical criterion of division, we still had to determine the allocation of space between the successive Parts of our book. We thought it desirable to make the perspective clear by writing an introductory Part which would reveal the theory and practice of war economy evolving in the United Kingdom through historical experience. Any reader who wishes to come straight to 3rd September 1939 may omit this first Part or return to it later. For the war period itself, we found ourselves compelled to allocate space in a manner which may seem at first sight surprising. In a military history, the period after Pearl Harbour, which is not only the longest in time but also witnessed the greatest deployments of armed force and the greatest victories, would claim the fullest treatment. But the requirements of a war-economic history are different. Much of its concern must be with the methods of economic mobilisation. The period of trial and error and slow beginnings is full of instructive experience which demands careful study. The period in which the main economic problems were mastered is no less instructive, and cannot be less briefly treated. For the United Kingdom, this period was closing in 1941. By the end of that year, the tasks of economic mobilisation had very largely been mastered. Thereafter, the main economic story is of a tighter turning of the screw and of adapting and adjusting the division of resources, both nationally and internationally. These processes are of great importance and have been

expounded, it is hoped, with adequate care; but the problems they raise for the economic historian are less numerous than those that were raised in the earlier periods.

Within each successive period, the same major themes repeat themselves. They first appear as paragraphs of Part I, where the logical arrangement is fitted, so far as may be, to the chronological. In later Parts they reappear as separate chapters or as sections within chapters. They are, in the main, the themes which the theorists of war economy will be looking for—the United Kingdom's capacity to procure and transport overseas supplies, the mobilisation of its military and industrial manpower, the condition of its basic industries, the suction of resources out of the sector of civilian industry, the efforts to ensure 'fair shares' of what remained, the efforts to curb the inflationary tendencies of the whole process. There are, besides, some themes which do not commonly appear in the treatises. We believe that economic events should be linked with strategical events and have therefore written short strategical sketches to preface each period. We believe also that a controlled economy cannot be understood without some overall view of the controlling institutions: hence our short studies—shorter by far than the original drafts—of the central administration. Finally, although our book is a history of the United Kingdom and not of its allies, we believe that it would be insular and unrealistic in the extreme to ignore the international environment which so powerfully governed the United Kingdom's economic effort. We have therefore discussed economic aid to Russia and the other Allies and have examined with some care the war-economic partnerships with France and the United States. It is chiefly in the early Parts, where we have been trying to build the base of our history, that these extra themes appear; once the base seemed broad and firm enough, we felt able to sharpen our focus upon the strict economic data.

One gap in the sequence of themes, with a consequent lopsidedness of the book's design, must be confessed. If our history of the war economy had aimed at perfection, it would have included in each chronological Part a long chapter explaining carefully how the war production sector was built up. But the positive employment of resources in the field of war industry is an immense subject. It is handled in the companion volume which Professor Postan is writing. The present volume shows, therefore, a distinct lean towards the civilian side. It does, however, record the overall expansion of British economic effort, the division of resources between the war and civilian zones, and the effects of the war drive upon the economy as a whole.

As the text will show, the definition of separate zones within the war economy is only a rough and ready one. The techniques for

measuring the relative magnitudes of these zones—by using, for example, the figures of national income and of manpower—are less precise than they are sometimes thought to be. Our narrative will give some account of how these techniques were improved during the war. It will pay particular attention to the manpower budgets, which, supported as they were by effective manpower controls, provided the War Cabinet with an instrument of special efficacy for determining the balance and direction of the nation's economic energies. The manpower chapters of our book constitute its firmest bridge with the war-production history and, indeed, with some other histories of this series. If it be remembered that manpower signifies not merely a scarce factor of production but also the men and women of Britain, the accent will be put still more heavily on these chapters.

We must say something about our methods of design and craftsmanship. Our view of the British war economy has been a central one; it might be called the War Cabinet view or—for the crucial middle period of the war—the view of the Lord President's Committee. Such a vantage point will seem to many specialists excessively remote. We have discussed technical problems in un-technical language, without penetrating to those details that are the province of the expert. Shipping, for example, is a most complex and specialised business; to those who have deeply explored it, our narrative may seem dead. Yet the War Cabinet and its committees, with the same lack of vivid detailed knowledge, could not and did not shrink from making the decisions which governed the distribution of scarce resources of shipping amongst the nation's competing war-time needs. The same rough justice was done similarly—often it might be simultaneously—in many other territories which were the homelands of many other experts. The expert histories—of fuel, of food, of shipping and agriculture, and the rest—will in due course appear. This book cannot in advance distil their essence; it seeks rather to introduce them. There is a central story to be told in which each of them, though it has a life of its own, will find itself reflected.

We have based our book primarily upon the records that are available at the centre of government. These records reflect the processes whereby policies originating in many departments were brought into focus. They do not, however, reveal the departmental and industrial background, in which will be found the stuff and substance of the specialist histories. In the many instances where some of this material has been necessary for an understanding of our central story, we have drawn what was available from the researches of our colleagues, besides submitting to them our own drafts for criticism and checking. But sometimes, in our later Parts particularly, this aid has not been available to us, because our work at the centre has been ahead of specialist research in the departments. Fortunately,

the central records become fuller and more concrete in the later years of the war. We have, besides, made some departmental reconnaissances of our own. We are, nevertheless, conscious that some of our chapters may call for revision later on, perhaps in a second edition. We also feel that our book in its present form may sometimes make heavy demands upon the reader's attention, because it contains more detailed information and example than we should have found it necessary to include if we had been able to give cross-references to the books of our colleagues. We might, of course, have held our book back until all the specialist investigations were finished. But no more in science and literature than in life is caution always the supreme virtue. We have felt it right to keep our promise and produce the book within measurable distance of the end of the war. Its production will in turn facilitate editing and hasten the completion of other books in the series.

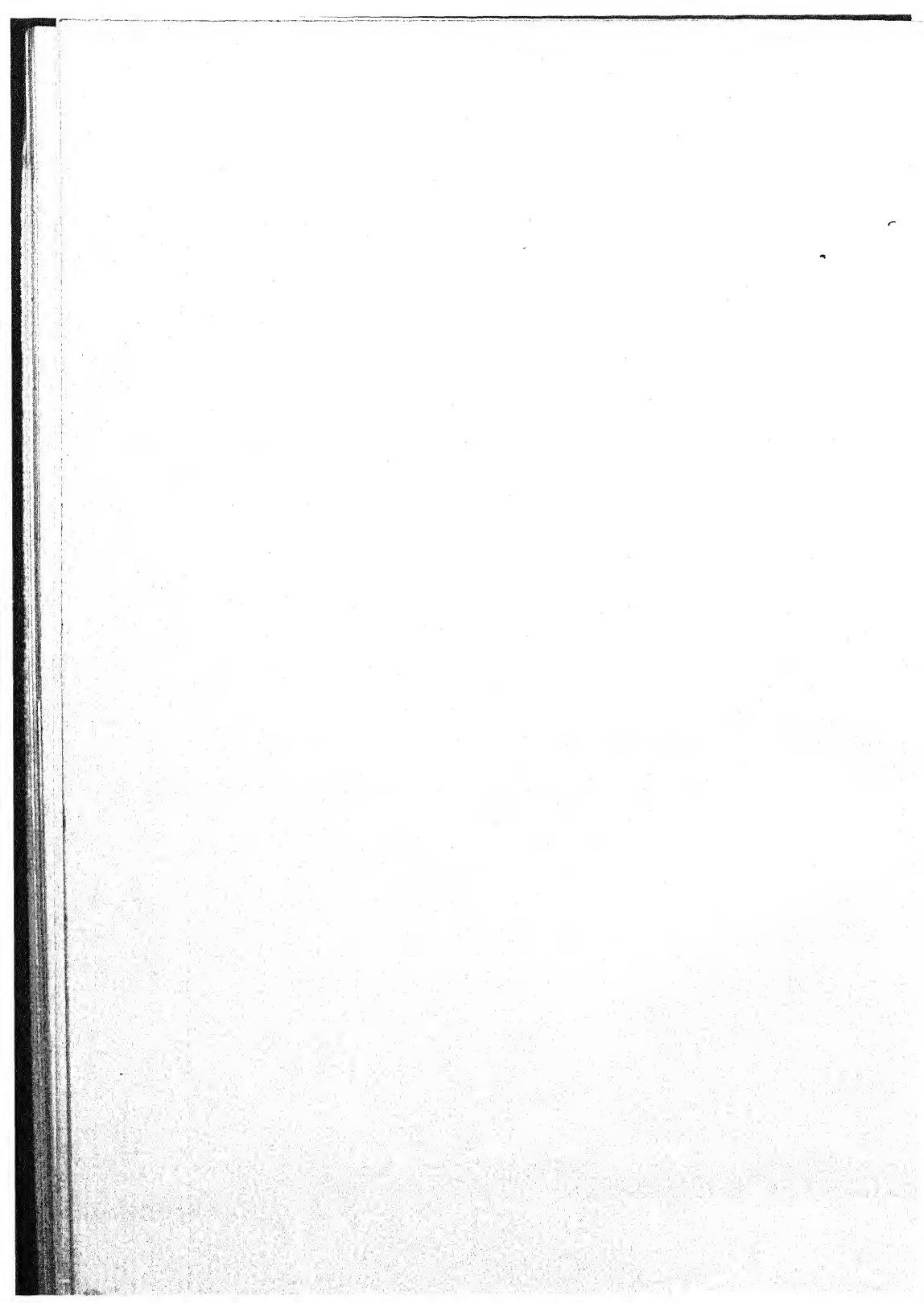
In publications of official history there is no opportunity to acknowledge the many debts of authorship that have been incurred. This, however, is a fitting place for the editor of the series to acknowledge his debt to his secretary, Miss Marjorie Eyre.

W. K. HANCOCK

Oxford,
20th August 1948

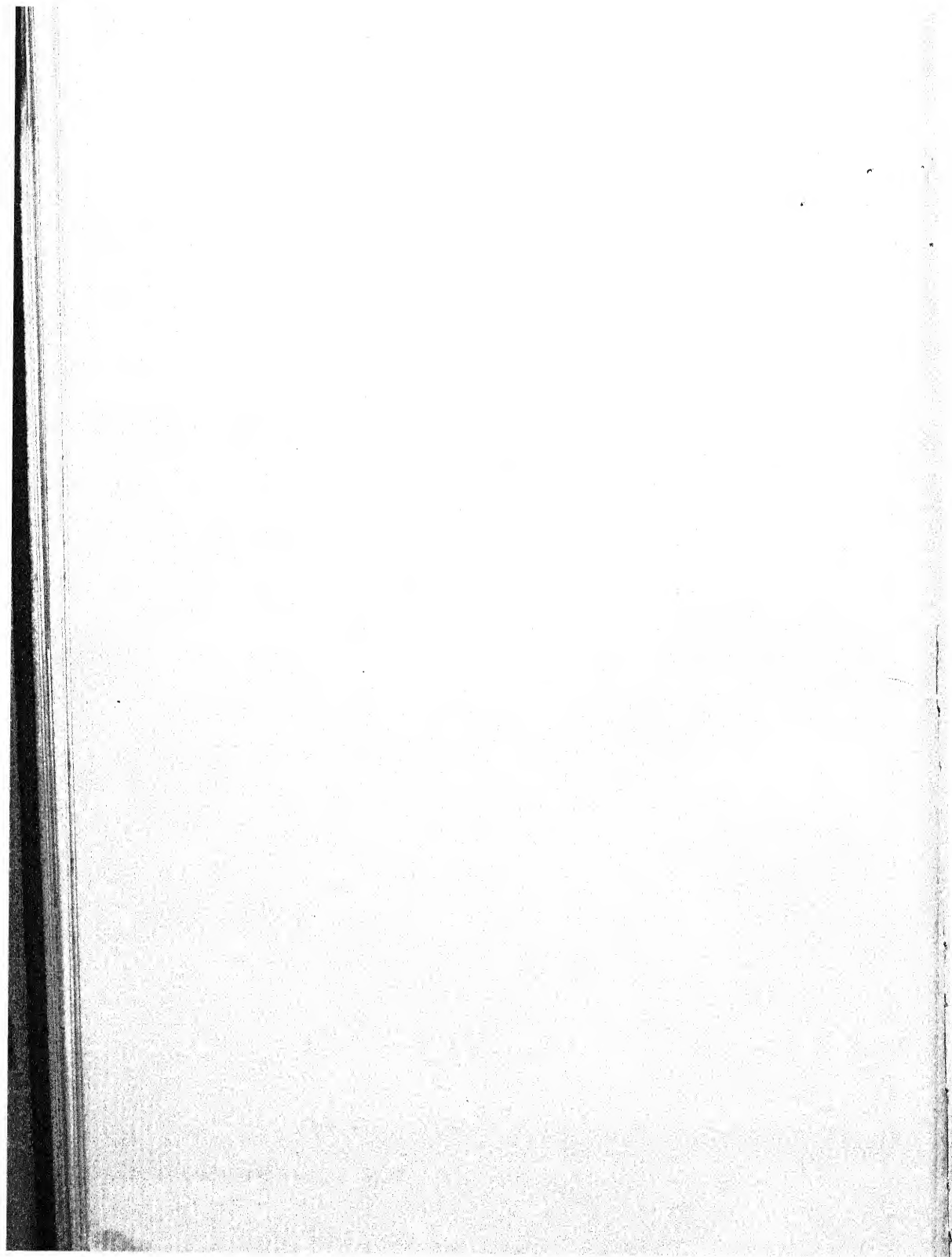
It has become necessary to re-print this book and the authors have made some small corrections of fact and style. They have not, however, been able to revise their statistical tables in such a way as to remove any discrepancies which may exist between them and official statistics subsequently published, for example, in *The Statistical Digest of the War*. Nor have they attempted the large-scale revisions which may be desirable if a second edition is produced after the series of Civil Histories is complete.

In the original preface a general acknowledgement was made of help received from other historians. No specific acknowledgements need be made here of work that has since been published or will be published in due course; but the authors would like to thank Professor E. C. S. Wade, Dr. N. H. Gibbs and Mrs. J. O. Daniels for producing drafts which they used in their studies of the legal and administrative framework and of aid to Russia.



PART I

Perspective



CHAPTER I

PREVIOUS EXPERIENCE

(i)

The Tradition of War Finance

BEFORE the war of 1914-18, there was in the United Kingdom no discussion about the 'political economy of war'; nor had German professors delved very far as yet into the ponderous science of *Wehrwirtschaft*. Both in Britain and on the Continent men of theory and men of business still believed that the special economic activities associated with war were nothing more than an excrescence upon the ordinary economic system. The sequence of economic phenomena when war broke out remained relatively simple: governments expanded their armed forces, speeded up production in their own ordnance factories and dockyards, and for the rest of their military requirements went into the open market as purchasers. If the war were a large one and the demands upon industry were heavy, the governments might find that prices were raised steeply against them—a sign that private enterprise was not responding with sufficient speed to its new opportunities of profitable employment; but never, until the spring of 1915, did they find themselves face to face with a persistent general failure of private industry to feed the war machine. That failure opened a new chapter of experience. From 1915 until the end of the war the governments in all belligerent countries were compelled to deal disrespectfully with the orthodoxies of supply and demand. In their struggle against the scarcities that threatened their war-making power they built up elaborate structures of economic control, which governed—although they did not entirely supersede—the normal economic incentives. They built up the controls empirically, piece by piece, without a doctrine to guide them. The doctrine came later.

A recital of the main articles of this new doctrine might serve reasonably well to introduce the present history; but the introduction would be abstract. A more vivid, if possibly less comprehensive understanding of the economic content of war in the twentieth century will be achieved by looking behind the theories into the experience out of which the theories came. The British Government was not able in August 1914 to foresee the economic pattern of the future; but it was able to draw inspiration from the financial

practice of the past. Mr. Lloyd George, as Chancellor of the Exchequer, appealed to 'the heroic example of our ancestors'. It was his task to provide the means of payment; he had behind him a tradition of finance which led back through Gladstone to the younger Pitt. The tradition was deep and firm; it was not merely a notion of how things should be done, but the 'know-how' of doing them, the administrative capacity for action and the habit of action. How valuable these endowments were may be understood by reflecting upon the evil fortune of the nations which did not possess them: most notably the Germans, who had no other habit of war finance except that of winning their wars quickly and making the vanquished pay; in 1914 they did not even have an income tax. It was the income tax, that 'colossal engine of finance', so laboriously and so skilfully built in the days of Pitt, which Gladstone and every Chancellor after him believed to be the true fiscal reserve of the United Kingdom at war. In retrospect they may have exaggerated the services it had rendered the nation during the wars against Napoleon, for in the year of Waterloo it had returned only a third of the sum that came from customs and excise. They did not, however, exaggerate the services it was capable of rendering and would render in the future. Their preference was for direct taxes over indirect, and for taxes of any kind over loans. The tradition into which they were born was a resolute one: pay for your wars as you fight them, and pay in the frankest way; put up the taxes, keep down the deficits, keep down the nation's debt.

The tradition had not been created except by a most determined struggle; nor could it be painlessly maintained. Our heroic ancestors, in Gladstone's view, had been financially most unheroic at the beginning of their great war; it was only in the culminating years of supreme exertion that they fully redeemed their former sloth. Gladstone believed that they might have gathered the strength that overthrew Napoleon without adding a single penny to the national debt, if only they had shouldered the war taxes in 1793. From 1799 onwards, resolution was vouchsafed to them increasingly, and over the whole twenty-one years of struggle they raised from taxation nearly half of their public expenditure. This performance set too high a standard for the Britain of 1914-18. The Britain of 1939-45 maintained it, and improved upon it.

In the first great war against Germany there had been, once again, an early time of unheroic finance; the time did not begin to be redeemed until the third war budget, introduced by Mr. McKenna in September 1915. The financial performance in which the war effort culminated might have been judged resolute, with a standard rate of income tax which had risen from 1s. 3d. to 6s. and a heavy surtax on top of that, with an excess profits duty that from 1915 onwards had proved itself almost as great a revenue-getter as the

income tax itself, and heavy indirect taxation on beverages and other articles of popular consumption. The figures of total revenue, if they had been taken by themselves, would have seemed impressive; but when they were set against the figures of total expenditure they revealed deficits which in the peak period of the war reached almost two thousand million pounds in a year. Over the whole war period, the British Government had succeeded in paying out of taxation not much more than a quarter of its expenditure.¹

Did this great discrepancy matter very much? Did the financial tradition of the nineteenth century still retain its relevance in a war of twentieth-century scale? It must be admitted that the reasons Gladstone had stated did not any longer seem very relevant. He had acclaimed drastic taxation as 'a moral check . . . upon ambition and lust of conquest'; but twentieth-century Britain was not lusting after conquest. He had approved it as the way 'to avoid placing the burden upon posterity'; but twentieth-century pamphleteers were wont to assert that each generation must shoulder the economic burden of its own wars. Apart from these general considerations, the Gladstonian standard of financial virtue was in practice beyond full attainment by any government engaged in a great war. It was ingenuous even to suggest that Pitt might have imposed the war taxes in 1793; the marvel was that he persuaded a tax-hating Parliament and people to accept them in 1799. And when they had been voted, their legislative and administrative perfection was the task of many years; the early administrative development of the income tax was itself a second marvel, which has at last been fully revealed by a brilliant discovery of recent years.² Against the inevitable delays in

¹ The figures in £ millions were as follows:

<i>Financial Year</i>	<i>Revenue</i>	<i>Expenditure</i>	<i>Surplus (+) or deficit (-)</i>
1913-14	198	197	+ 1
1914-15	227	561	- 334
1915-16	337	1,559	- 1,222
1916-17	573	2,198	- 1,625
1917-18	707	2,696	- 1,989
1918-19	889	2,579	- 1,690
1919-20	1,340	1,605	- 325
1920-21	1,426	1,195	+ 231

Mr. Bonar Law, introducing the last war budget, estimated that from the beginning of the war to the end of the financial year 1918-19, taxation would cover 28.3 per cent. of central government expenditure. The corresponding figure for the Revolutionary and Napoleonic wars is (following Prof. Silberling) 46.8 per cent. The capital sum of the national debt was £650 millions before the war and £7,832 millions in 1920.

² A. Hope Jones, *Income Tax in the Napoleonic Wars* (C.U.P. 1939). Perhaps the writer should say that he is aware of the impediments to any close comparisons between British taxation in the Napoleonic wars and the twentieth-century wars—for example, the great differences in income per head and the length of time over which the wars were spread, not to mention modern developments of the taxation system. These paragraphs have only the limited purpose of sketching in the rough the background out of which modern British war finance came and indicating the long development of a tradition.

the voting of new taxes and the gathering-in of their yield, there must in every war always be set a steep rise of expenditure from the very day on which the Government sets itself in earnest to its war-time tasks. Adam Smith was no lover of public borrowing; but he knew that there was no escape from it 'in the moment of immediate danger'.¹ Those same necessities that constrained British Governments in the great war against France constrained them again in the first great war against Germany. They found that taxes took time to vote; they found that their administrative machine, superb though it was, would suffer if it were overstrained; they found that even a highly buoyant revenue could not keep pace with the swelling deficits. What else was to be expected, when British artillery could deliver $1\frac{1}{2}$ million shells in a barrage preliminary to a single battle, and German artillery in one day and a half could fire as many rounds as all the German guns had fired in the entire Franco-Prussian war? A Chancellor of the Exchequer need not perhaps be too severely blamed if he lowered his sights a little and measured the financial performance of his nation, not against its own famous past, but against the present-day performances of its twentieth-century enemies and allies. To levy taxes covering not much more than a quarter of government expenditure might not seem heroic; but it was sufficient to maintain the solid structure of British credit. That virtue at least was contained in a precept enunciated by Mr. McKenna on the occasion of the fourth war budget:

. . . We never borrow a pound without making provision by new taxation sufficient to cover both interest and sinking fund.

How much happier German history would have been, in spite of military defeat, if the government of the Reich had followed the same precept!

Such a defence of British financial policy has great weight. From a strictly budgetary point of view, it might perhaps be accepted as a sufficient answer to those zealots of the Gladstonian tradition who from 1914 onwards accused British Chancellors of doing too little and doing it too late. However, the 'protesting economists'² of that time had an additional argument. They knew that what a war-time Chancellor does, or shrinks from doing, has far-reaching effects upon the supply of money and the general level of prices. They denounced the Government's borrowings, and the method of them, as the prelude and the cause of a disastrous inflation.

Once again it will be profitable to follow a doctrine back to the time of its self-conscious formulation during the Napoleonic wars. Protesting economists during that earlier struggle set out to demonstrate

¹ *The Wealth of Nations* (ed. Cannan) Vol. II, p. 395.

² cf. Edwin Cannan, *An Economist's Protest* (London 1927) p. v. '... "What did you do in the Great War?" ... "I protested." ...'

a thesis: the high price of bullion is a proof of the depreciation of bank notes; the paper pound has lost value through over-issue, and it will continue to lose value unless it is tied once again to gold. On the point of theory, Ricardo and his bullionist allies scored against the spokesmen of the Government and the Bank dialectical triumphs which economists continued to applaud for the next hundred years. Nowadays these triumphs seem pitifully irrelevant. Monetary theory itself has outgrown the one-sided cocksureness of the bullionists; historical and statistical research has revealed their inadequate command of relevant economic fact. No less important to twentieth-century minds (which have learned once again to take the measure of war) is the political irresponsibility with which the bullionists pressed their propaganda. Their wrong-headed advocacy would have forced the nation back to gold and a restricted war effort in the very month—so it turned out—when Napoleon was winning the opening battles in the great campaign in Saxony. It may be too much to say, as an American scholar has said,¹ that there would in all probability be no British Empire today if Ricardo and his friends had had their way; but it is impossible to ignore their apparent unconcern with the issue of the war. They wrote and spoke as if victory were an irrelevance.

It is not therefore to the economists of those days that we must go if we wish to see the problem of war-time inflation in its proper setting. We must go rather to the exponents of a more sober tradition which already had been native to England for more than a hundred years. This was the tradition of political arithmetic, the discipline which we today call economic statistics. Patrick Colquhoun was a statistician, a patriot, and a man of common sense. He fastened first upon the central fact: the nation was fighting a war of self-preservation. For such an object, no price could be too dear. Colquhoun reckoned up the superficial odds of the struggle: on the British side a population of 17 millions (allowing a problematical $4\frac{1}{2}$ millions for Ireland), on Napoleon's side a continental population of 100 millions. But the British were beating him! They had annihilated the navies of France and her allies, they had captured French colonies, now at last they were overthrowing Napoleon's armies on the soil of Europe itself! Colquhoun was a patriot who had no wish to conceal his 'wonder and exultation' at so mighty an achievement; he was also a calculator who wished to measure it in material terms. He found his measure in the 'New Property . . . annually created by the Labour of the people'. He found it—so we should say today—in the figures of the national income.²

¹ Prof. Silberling in *Quarterly Journal of Economics*, Vol. XXXVIII. Two articles on 'Financial and Monetary Policy of Great Britain during the Napoleonic Wars.'

² P. Colquhoun: *A Treatise on the Wealth, Power and Resources of the British Empire* (London 1814).

Here was a clue of central importance. Other like-minded investigators¹ followed it up, eliminating some of Colquhoun's double countings and pushing further his inquiry into causes. The immense increase of public expenditure since the beginning of the war (from £27½ millions in 1792 to £173½ millions in 1815) did not seem so inexplicable a marvel when it was measured against the immense increase of national productivity. Nor were reasons for the rising productivity hard to find. The censuses testified to a very rapid growth of population. Common observation revealed that many men 'who from deficient activity or mediocrity of parts would, in a state of peace, have necessarily remained unemployed, were brought by the war into situations attended with income'; as we today would put it, war had created conditions of full employment. Finally, much of the employment was found in industries of rapidly increasing technical efficiency.

The political arithmeticians were at the same time very well aware that the increase of physical output, great though it was, did not by itself account for the total rise in the national income. They understood that the swelling figures were due in part to a notable rise in prices. This they ascribed to two causes: to begin with, a war-created scarcity of goods and services, and after that—after 1809 particularly—a war-created abundance of money . . . Here at last, in proper perspective, appeared the monetary phenomenon that had so disproportionately excited the economists.

Here indeed could be found a whole habit and system of thought, sufficiently comprehensive and in its proportions sound enough to serve as a standard of reference for the makers of government policy—and its critics—even in wars of twentieth-century scale. An estimate of the national income could be made a guide to the progress of economic mobilisation; it could indicate the total sum of home-produced and imported resources from which the nation must draw its war-making power; it could thereafter reveal what proportion of this total was in practice appropriated by the government or switched over to the direct effort of war. It could measure the *size* of the war effort, which the time-honoured calculations of the relative proportions of tax and loan, important though they still remained, never pretended to do.

Unfortunately, this habit of calculation did not during the next hundred years win for itself a central place either in the Treasury or in academic thought. In his budget speech of May 1915 Mr. Lloyd George, still with his eye upon 'the heroic example', offered a brief comparative estimate of British national income in Napoleonic times and the proportionate yield from taxation; he then proceeded

¹ e.g. Joseph Lowe: *The Present State of England in Regard to Agriculture, Trade, and Finance* (2nd Edition, London, 1823).

to estimate the national income for the last peace-time year before August 1914. It seemed as if something important might follow from these calculations, but nothing important did follow; the illuminating idea flickered and went out. By and large, the makers of financial policy throughout the war confined themselves within the orthodox budgetary tradition; the critics of policy appealed, in the main, to the ideas of Gladstone and those of the Bullion Report.

Within these bounds there was, no doubt, fair scope for the critics. After August 1914, as after February 1797, government borrowing and a paper pound opened the way to inflation. This time the inflation was more dangerous; the pound fell faster and farther than it had done a century earlier. Measured against the indices of wholesale prices, its purchasing power after 1793 had been within two decades halved; after 1914 its purchasing power was reduced by two-thirds within a period of six years.¹ In both wars there were two causes of rising prices—the scarcity of goods and the abundance of money; but in the war against Germany the accent fell more heavily upon the second cause. The mechanisms of monetary expansion were possibly rather more complicated in the twentieth century than they had been in Napoleonic days. Although the bullionists painted a rather over-simplified picture, they were right in their time to concentrate their attention upon the issue of bank notes: a hundred years later, the majority of payments in Great Britain were made by cheque. Whereas in the six-year period from the end of 1913 to the end of 1919 the nation's paper money (Bank of England and currency notes) was increased from £57 millions to £459 millions,² its bank deposits in the same period were increased approximately from £1,000 to £2,800 millions. The first official explanation of the processes of this vast expansion was given in 1919 by the Cunliffe Committee on Currency and Foreign Exchanges.³ The Committee demonstrated that when the Government spent money which it had borrowed from the trading banks, it increased by a proportionate amount the deposits on which private people could draw cheques, and that it increased the volume of private purchasing power in extreme disproportion, when it borrowed from the Bank of England. No doubt the Government recovered by taxation and subscription to war loan (at an interest rate of approximately five per cent.) a considerable part of these inflated money incomes. But need the inflation have been so large in the first place? Were there not more economical methods of borrowing?

¹ By the Silberling index (1790=100) the peak was 211 in the first quarter of 1814; by the *Economist* index of wholesale prices (1913=100) the peak was 299½ in March 1920—i.e. a year and more after the war.

² It is to be noted that in the same period £123 millions of gold even went out of circulation, though silver coin rose from £34 to £77 millions.

³ Cd. 9182 of 1918 (Command Paper).

The protesting economists of the First World War paid less attention to the mechanisms of inflationary finance than to its injurious effects. They pointed out that the Chancellor, by seizing an easy short-term advantage, was storing up long-term trouble for himself and his successors. While the war lasted and the inflation continued, the original budgetary gap must become progressively more difficult to bridge, owing to the time-lag between the assessment of taxes when money was worth more, and their collection when money was worth less. After the war, when the inflationary process came at last to be reversed, an immense burden of debt that had been acquired in depreciated pounds would have to be carried by paying out more valuable pounds. These budgetary problems were formidable; but the economic and social consequences of inflation were more formidable still. It interfered with the war plan by stimulating private bidding for resources needed by the Services and supply departments. By the injustices it inflicted upon a section of the people, it damaged social morale and national unity. The violent disturbance of economic demand caused by the war was bound in any event to alter the relative economic rewards of different individuals and classes; inflation mischievously and capriciously aggravated these war-created inequalities. It raised the incomes of some capitalists and some workers, and imposed on others concealed taxation of the most damaging kind. It created conditions under which profiteering became an involuntary and inevitable state of grace, or disgrace. It made London a spectacle of ostentatious wealth and brittle pleasure at a time when the toll of slaughter was mounting in France and thousands of families were receiving every week the news of sons and brothers killed in battle. It branded upon a decent, patriotic people new and raw marks of inequality, vulgarity and callousness.

There was, nevertheless, something to be said on the other side. At the time, it was said only fragmentarily, or was acted upon piecemeal without being said; but later on, between the two wars, a systematic elaboration of doctrine was achieved, both in academic circles¹ and also (as the next chapter will show) within the Treasury. By 1939, a broader and firmer conception of the purposes and techniques of war finance had established itself. In the light of this conception, British financial experience and experiment during the First World War may be rearranged retrospectively into a clearer pattern.

In August 1914 two fundamental economic tasks confronted the British Government: first, to absorb into productive industry all employable resources of brain and muscle, material and plant; secondly, to switch over to immediate war purposes as large a

¹ cf. the growth of doctrine as exemplified in the successive editions of Professor Pigou's book, *The Political Economy of War*.

proportion of these resources as could be spared from their ordinary peace-time activities, or inactivities. In abstract theory, these tasks might have been tackled and mastered by sovereign command, by the universal conscription of men and wealth into a 'siege economy' where the Government would manage everything and pay everybody; in practice so ambitious an attempt, had it been made, would have collapsed into administrative and social chaos. Some zealous doctrinaires clamoured for it to be made a generation later, in the critical and exuberant summer of 1940; but even then it would have been a war-losing folly; even at the very end of the Second World War, the strain upon administration was relieved, and social efficiency was gained, by leaving some economic choices dispersed amongst private individuals and decentralised groups. At the beginning of the First World War, when huge administrative structures such as the Ministry of Munitions had not as yet even been dreamt of, the mainspring of industrial mobilisation was by necessity economic demand, not sovereign command. It was government expenditure that released the spring. The Government had to spend immense sums of money in order to achieve at maximum speed the maximum intensity of economic employment; it had to keep on spending them in order to feed the war machine's insatiable appetite for men and steel. Its expenditure swelled the money receipts of many classes and raised the total income of the nation at the very time when it was diverting national activity from production of the goods and services which ordinary people wished to buy. Thus was created a new gap: not this time the budgetary gap, so much denounced by the Gladstonian purists, between the expenditure and revenue columns of the public accounts; but an inflationary gap between the swelling supplies of purchasing power distributed—albeit unequally—among the nation and the diminishing supplies of purchasable goods available to the nation. The Government was face to face with a dilemma; it could not cramp its expenditure within the bounds of traditional orthodoxy without retarding and constricting the economic mobilisation necessary for victory; it could not build its 'paper bridge' without risking a collapse into an uncontrollable price inflation and eventual social chaos.

Policy was able to map out a practicable middle way between these two extremes of danger. There was virtue still in the established budgetary tradition; to take back in taxation the greatest possible amount of the newly created income was the simplest and best way of relieving the pressure upon prices. The same object would be immediately achieved (at the cost of a continuing budgetary burden) in so far as the receivers of income could be induced to lend directly to the Government money which they would otherwise have spent. It was, no doubt, too much to expect that any government engaged in a war

of twentieth-century scale would be able completely to satisfy its needs without having recourse to the banks, and thereby generating a surplus of purchasing power; but from 1916 onwards the British Government adopted a new borrowing policy which aimed at the reduction of purchasing power by drawing directly upon 'the genuine savings of the people'. That year saw the beginning of war savings certificates and the foundation of the National Savings Committee, a body which went into action again in 1939 with twenty-three years of continuous history behind it.

On the financial side, therefore, the design of a comprehensive policy to control inflation took definite shape before the close of the First World War. No doubt there still remained room for a more resolute drive behind the policy. There was, however, no possibility that finance alone could do the work that had to be done. There was no chance of bridging the inflationary gap unless the Chancellor's work was reinforced by measures of direct economic control. The best way of gathering in the nation's savings was to 'compel them to come in' by consciously drying up and levelling down the opportunities for private spending on consumption goods and capital goods. Direct rationing became essential, not merely for the blocking of redundant purchasing power but also to ensure 'fair shares' of scarce essential commodities.

This summary review of the tradition of war finance must, therefore, be followed by an inquiry into the origins of war-economic control.

(ii)

The Beginnings of Economic Control

'Business as usual', that slogan of economic endeavour which was trumpeted throughout the United Kingdom in August 1914, has provoked many retrospective sneers; it is so easy, and so flattering to our self-conceit, to be wise after the event. Set in its proper context, the slogan was not altogether absurd, for it reflected faithfully enough the experience of the previous hundred years, during which the mechanisms of supply and demand had been well adapted to meet the comparatively modest requirements of the war machine. The British people in their long nineteenth-century peace had forgotten how heavy the burden of war might be.

The episode of the Crimea did not remind them; for they bought their victory, such as it was, with a navy of 70,000 men and an army of 150,000, and a total differential war expenditure¹ of a bare

¹i.e. actual expenditure less what would have been the total annual expenditure assuming a constant normal growth based on previous increases.

£70 millions in two years. In the last phase of the Napoleonic wars a much smaller British population had sustained in a single year almost double this war expenditure, and had maintained a navy of 140,000 men and land forces of 350,000. Over the whole period of the war with France the nation had paid a toll in death which in proportion to its numbers was as great—though not, of course, so terribly concentrated in time—as the toll which it paid a century later in the first great war against Germany. All these facts were forgotten: many Englishmen read the novels of Jane Austen, few studied the sombre statistics of national achievement and loss.¹

Even if they had correctly measured the immense endeavours of their forefathers, they would have derived from their researches more inspiration and encouragement than practical guidance in their twentieth-century task. In the second German war, if not in the first, it was the destiny of the Jane Austens of England (if any existed) to become 'mobile women'. The absorptive capacity of war had been completely transformed during the intervening century by fundamental changes in the economic environment of the Western world. Europe in Napoleonic times was still primarily an agricultural continent, with a very high degree of local self-sufficiency. Even eastern Lancashire, the most highly industrialised district of the most highly industrialised country of Europe, returned under Schedule A of the Property Tax (rent and real property) double or three times the sum that it returned under Schedule D (the profits of trade, commerce and industry).² It would not have been quite true to say that there were no large war industries—there were the naval dockyards of the Channel and the Thames, the great ordnance establishments of Woolwich and Enfield, and those new prodigies of the iron industry such as Coalbrookdale and Carron: nevertheless, the time was still far distant when war would become *the* great industry, directing, distorting, and dominating the whole of the nation's economic

¹ The official estimates of the differential war expenditure for the whole Crimean war vary around £70 millions (S. Buxton, *Finance and Politics*, Vol. I, pp. 155-6; Mallet and George, *British Budgets*, p. 36). Professor Silberling reckons the average *annual* differential war expenditure of the United Kingdom at £120 millions in the period 1811-15 (op. cit.). The estimates of the fighting forces are taken from the relevant parliamentary papers. If forces of the East India Company, and the local militia, the volunteers and yeomanry were to be included, the total of British Empire forces under arms in January 1814, according to returns in the Adjutant General's office, would fall little short of a million (961,514). Half a million is a fair round figure for United Kingdom effective forces in 1814 (excluding local militia, etc. but including enlisted foreigners). The latest and best estimates of war mortality are by Professor Greenwood in *Journal of the Royal Statistical Society*, Vol. CV.

² Of course, Schedule A included urban rents and was with difficulty evaded, whereas Schedule D was widely evaded; but the main proposition remains true of a country in which the industrial concentration of east Lancashire was still unique. England, nevertheless, enjoyed, in a degree exceptional for those times, the important war-economic advantage of an export surplus on trading account—an advantage which in the twentieth century had been lost by England but gained by the United States. In Napoleon's day England ran a modest version of lend-lease; in the Kaiser's day and Hitler's she ran up debts.

resources and effort. The size of the campaigning armies was constricted in Napoleon's day by the transporting capacities of sailing ships, canal barges, and horse-drawn vehicles or pack animals. A careful contemporary student of Great Britain's economic effort against Napoleon came to the conclusion that it took the whole-time effort of one war-worker to maintain two men in the fighting services; he reported this conclusion with some awe.¹ A century later, British economists calculated that as many as three war-workers might be needed to maintain a single fighting man. Estimates of this kind are no doubt so variable, in accordance with the definitions at different times employed, as to possess no exact comparative value; but they do, nevertheless, give a true general impression of the enlarged economic dimensions of twentieth-century war.

For those who would desire some precise numerical reinforcement of this impression, details such as the following may serve. Between 2nd and 18th August 1914, 7,000 French railway trains going and coming continuously by day and by night transported to the battle front $3\frac{3}{4}$ million French soldiers. These French soldiers, like their German antagonists, went to the front expecting a swift and short war of movement, not that rigid embattlement of opposed millions which was the unforeseen curse of the four dreadful years ahead.

Behind the entrenched armies was an intricate mesh of railways, not to mention the roads on which petrol-driven vehicles would soon be crowding; the British Army, which in August 1914 had only 100 motor lorries, possessed 60,000 of them at the end of the war. More than anything else, it was these modern facilities of transport that differentiated the 'great' war of 1914-18 from wars of the pre-railway age, great though they, too, may have been when measured against the technical capacities of their own time. Twentieth-century transport could carry food, fuel and clothing sufficient to maintain in continuous array of battle, armies that were now reckoned by the million, and it could carry as much ammunition as the factories could produce to feed their modernised weapons. More men, more numerous, powerful and intricate equipment, a vastly increased rate of consumption and wastage—here was the immediate pull of demand which transformed the economic effort of war. Faced with this unprecedented demand, supply faltered and failed. From the failure of supply emerged something new: no longer the old order of war finance and voluntary economic effort, but the new dispensation of war economy, the total and combined efforts of entire nations, directed and controlled by governments newly equipped with large and complicated administrative mechanisms.

¹ Joseph Lowe, *op. cit.*

THE VERTICAL PENETRATION OF CONTROL

This new dispensation, it must once again be repeated, came unforeseen and unplanned; it emerged by stages from struggle and necessity. The manner of its emerging may be illustrated from the experience of the British War Office, beginning with the Quarter-Master General's needs. There was, for example, a quite unprecedented need for sacks.¹ Armies had always used large quantities of sacks; the supply services wanted them for packing and transporting stores and as nosebags for their horses, the infantry wanted them for the construction of earthworks and trenches. Towards the end of 1914 the infantry were beginning to dig as infantry had never dug before. They kept on digging throughout the war. By November 1918 the number of sandbags supplied by British makers to the British and Allied armies—chiefly for the construction of trenches and dugouts—had reached the dizzy total of 1,186 millions. A demand so fantastic had never been dreamt of at the beginning of the war. Towards the close of 1914, the army was calling for bags at the rate of about a quarter of a million a month. By May 1915, it was demanding six million a month—and even this figure fell short of the growing need.

When the War Office went into the market to buy sacks, it met with an unsatisfactory response. Either there was a real shortage; or else suppliers were holding back in expectation of a rise in prices. In March 1915, when the War Office made an urgent appeal to the trade, it received a swarm of unsatisfactory small offers, together with one large offer from a speculator who hoped to corner the whole supply of sacks and make a 100 per cent. profit by selling them to the Government at a price three times higher than the previous market price. This impudent proposal stung the War Office to direct action. It sent officials to Liverpool to requisition the stocks of the sack merchants there; it sent other officials to Dundee to get a lien on the production of the jute manufacturers. The business of the Liverpool merchants was soon settled; they were paid at a figure representing the market price of sacks before the demand of the Army had sent the prices rocketing. But the Dundee manufacturers had problems that required more patient and intricate handling. To begin with, they were choked up with private contracts at home and in the export trade. These contracts the War Office required them to break, so that they might be free to concentrate their whole effort of production, at least for the time being, upon satisfying the requirements of the Army. At what price? After dealing so summarily with the claims of the merchants and private consumers, it would have been absurd

¹ This paragraph and the next are based upon E. M. H. Lloyd, *Experiments in State Control* (Carnegie Endowment), Chapters iv, v, vii.

for the Government to allow the manufacturers supply-and-demand prices in a market that had been so completely transformed by its own abnormal demand. On the other hand, there were reasons of expediency as well as of justice prompting it to allow the manufacturers recovery of their costs and a reasonable margin of profit: otherwise it might find that it had aggravated the problem of supply by destroying the incentive to production. Along these lines the War Office officials opened negotiations with the jute manufacturers. Very soon they discovered that it would be futile to fix a price for the end-product only: some units of the industry were large enough to cover all its processes, but others confined themselves to a single process, such as sewing, or weaving, or spinning. It was therefore necessary to fix a price covering cost and a fair profit margin at every stage of production from the spinning of the raw jute to the despatch of the finished bags to the Army depots. Even this was not enough: supply was not safeguarded, nor the elaborate pyramid of prices and controls firmly based, until the British and Indian Governments took concerted measures to fix prices for and to ensure regular deliveries of the raw material itself.

Many similar stories could be told, all of them having an identical beginning under the original impulse of scarcity, but in their development combining some uniformities of practice with variations arising from the peculiar circumstances of particular industries.

Certain problems of administrative technique invariably repeated themselves: cost accountancy, which had not hitherto been part of the ordinary training and experience of the civil service, now became a necessary and normal part of its business operations. Sometimes the War Office employed independent firms of accountants on a commission basis; at other times it absorbed into its own administrative establishment the specialists it needed.

On the legal side of economic control, there gradually emerged, after some early improvisations under the Royal Prerogative, a standardised code of practice. The Government took to itself, by defence regulation, specific powers to requisition stocks of goods and materials, to pay manufacturers on the basis of cost and a fair profit, to license dealers, to enforce priorities of distribution, and in other ways to establish State control over trade. The regulations enumerating these powers had a hard modern ring; yet there were many lawyers who thought it a false one: for what had the fixing of prices for jute yarn and of priorities for raw wool to do with 'the public safety and defence of the Realm'—the governing purpose within which defence regulations were by law confined? A good many lawyers nourished these misgivings throughout the war; but very few laymen were disturbed by them. The real sanction behind the emerging war economy lay not in legal forms but in national consent,

a consent that flowed from the deep popular consciousness of peril and need.¹ Throughout the time of danger, British industries were ready to accept regulations that were necessary and fair, even if their legal basis were disputable: conversely, they disputed and usually in the end defeated unnecessary or unworkable regulations, no matter how sound they might be in strict law.

Economically, the vertical penetration of control downwards towards the sources of raw material supply repeated itself in all controlled industries, with differences in its speed of penetration and ultimate comprehensiveness. In general, it may be said that centralisation of purchase was pushed furthest where supplies were scarcest.² The method of purchase varied from industry to industry and country to country. Sometimes the British Government bought direct from another government; the most notable example of this procedure was the audacious deal of November 1916, when, 'by the exchange of half a dozen cables in the course of a fortnight', the War Office purchased the entire wool clips of the southern Dominions. The effect of this transaction was to eliminate completely all private trade in wool, both at the British end and in the exporting countries. Sometimes, however, the British Government operated commercially and competitively in the markets of the exporting country; either indirectly, by choosing a firm or group of firms to act for it on a commission basis, or directly, by absorbing into its own establishments persons possessing the necessary commercial competence.

Whatever the measures adopted for the control of imported supplies, there had to be parallel measures for the control of the corresponding home-produced supplies. An outstanding example is the meat trade; control began early, with the measures taken by the War Office to safeguard the Army's requirements of imported meat; it extended, late but at last, into the Ministry of Food's drastic refashioning of the entire meat industry and its organisation of rationing to safeguard essential civilian needs. This horizontal extension of control from the sphere of military requirements into the sphere of civilian needs is a theme of central importance to this chapter, and indeed to the whole book; but it may be postponed a little longer.

There is still something to be said about the vertical penetration of War Office controls; for the picture would be too much out of balance if no reference were made to the great industries—engineering,

¹ After the Second World War also, all economists of practical experience emphasised this fundamental truth. See, e.g., Lionel Robbins, *The Economic Problem in Peace and War* (1947), p. 45.

² An example of this tendency might once again be taken from Dundee, where purchasing arrangements for Russian flax, the raw material for the heavy linen industry, were much more centralised and stringent than for Indian jute, because the flax was much scarcer than jute.

metals, chemicals—with which the Master General of Ordnance was concerned. It was in this zone of munitions production that the pre-existing capacities of supply failed most signally to meet the requirements of the twentieth-century war machine. Nineteenth-century Britain had shown a steady bias against direct government participation in the munitions industries;¹ but the bias had not gone so far as to close down the state-owned ordnance factories, which in August 1914 were still providing the Army with about a third of its weapons. A principal role assigned to the ordnance factories was to assure supplies in the opening phases of a war; thereafter, it would be the task of private industry to shoulder the main burden of munitions production. Private industry, however, was given very little peacetime training for its war-time task. In August 1914 there were no more than sixteen firms (ten of them small) habitually tendering to meet War Office requirements of guns and shells, rifles and small arms ammunition; and there was virtually no industrial provision for the other munitions that the Army would be clamouring for in the coming years—trench mortars and grenades, the entire apparatus of chemical warfare, armoured fighting vehicles and unarmoured mechanical transport. Administrative arrangements were to scale: eighteen clerks in the Army Contracts Department were managing the commercial procurement of everything the Master General of Ordnance needed.

In May 1915 the administrative task was transferred to the new Ministry of Munitions. During the next 3½ years the Ministry spent more than £2,000 million, and by November 1918 it had built up its staff to more than 65,000. The challenge that it had faced during the first year of its existence had been an unprecedented one; for Army recruitment was then rising above three million and the forces at the front were expending ammunition at a rate never before imagined. To equip millions of British and Allied soldiers with weapons and keep them supplied with ammunition, the Ministry had to take control of the munitions industries exactly as the War Office had taken control of the textile industries—cancelling private contracts, arranging its own contracts without respect to the laws of supply and demand, estimating costs and fixing prices at every stage of production, purchasing and distributing the raw material. It had besides to do a great deal more. For the expanding war economy necessitated a great effort of investment which the mechanism of the market—even if the essential strategical and technical knowledge had been miraculously injected into it—was most unlikely to call forth. The purpose of the investment was a short-term one, destruction of the enemy's power; private enterprise could hardly be expected to

¹ cf. C. 5116 of 1887, *Committee on the Organisation and Administration of the Manufacturing Departments of the Army*. Vol. XIV. (Command Paper.)

accept the major financial risks of providing buildings and plant that would become redundant when peace returned. The Ministry of Munitions, therefore, had to expand the capital equipment of the old specialist firms. It had also to search out and mobilise the productive capacity of every firm, large or small, experienced or inexperienced, which was capable of being trained and switched over to munitions work.¹ On top of this it had to build and operate immense new factories of its own. These government factories played an essential part in filling out and balancing the total effort of British industry; they supplemented the private industrial production of 'traditional' stores such as guns and shells, they tackled sudden bottleneck items such as machine tools, they produced prototype equipment of a non-commercial and specialist kind, they drove forward the mass production of ultra-modern weapons of war such as aircraft and aero engines.

THE HORIZONTAL EXTENSION OF CONTROLS

The history of the Ministry of Munitions was recorded after the war in eleven volumes. No further allusion can be made to it here; for the theme of the present book is not war production, but war economy. The distinction between these two overlapping subjects of study has been mentioned in the preface and may be illustrated here by a brief reference to German experience. On the evidence available, it would seem that Germany's economic failure was not in the special province of war production, but in the allocation of economic resources amongst all claimants, including the civilian population. The Germans, after their original expectations of a short war of movement had been falsified, were quick to adapt their war industries to the requirements of positional warfare. They switched production, more quickly than the British did, over from field guns and shrapnel to heavy guns and high explosive shells. They found in Walter Rathenau a brilliant master of industrial organisation and applied science, and through his practical genius achieved sensational triumphs in producing substitute materials to replace the imported raw materials that the blockade denied them. But they failed to provide sufficient food for the people. It has been estimated that, at the end of 1918, the German people were consuming only sixty-four per cent. of the cereals, eighteen per cent. of the meat, and twelve per cent. of the fats that they had consumed before the war. When the war was over, German propagandists put the blame on 'the hunger blockade', and found gullible audiences both at home and

¹ Hence the great importance of the Ministry's regional organisation, which enabled it to acquire the detailed knowledge necessary for mobilising capacity in each industrial area.

abroad. The blame would have been more justly put upon the German Government. Before the war, the Germans were importing less than ten per cent. of their food. Their losses of overseas food imports were a small thing in comparison with the losses they inflicted on themselves by their failure to maintain home production. That failure had simple causes: decline in the number of draught animals and no compensating mechanisation of agriculture; inadequate production of fertilisers; insufficiency of farm labour. Each of these causes has its root in a deeper cause, the faulty balance of a war economy in which resources essential for maintaining the efficiency of the civilian population were engulfed by the armed forces and the industries most closely connected with them.

In the United Kingdom, there was at the outset of the First World War no clear conception of war economy as a unified structure in which military and civilian requirements must be kept in proper balance with each other: on the contrary, those piecemeal controls that have already been surveyed contained within themselves the possibility of cumulative and ruinous unbalance. When, for example, the War Office satisfied the Army's demand for jute, it did so at the expense of civilian demand: that is to say, by curing its own scarcity it created a new one. Somebody had to go short—meat packers, or flour millers, or the overseas grain exporters who were supplying British requirements. Such shortages, had they persisted, would have had injurious effects upon the nation's war effort, and would have called for government intervention in the field of distribution, so that the heaviest loss might be made to fall where it would do least harm. In this particular instance direct remedial action was not necessary because the British and Indian industries possessed between them sufficient productive capacity—once it was in full employment—to satisfy Army requirements of jute and the civilian demand as well. Circumstances were not always so easy. The British boot industry, with a moderate expansion of its capacity, was able to produce more than 60,000,000 pairs of boots for British and Allied soldiers: not, however, without considerable strain, which became manifest towards the end of the war in an excessive rise of prices and a no less excessive decline of quality in the civilian market. The Government, which had long since established such controls over boot manufacture and tanning as were necessary to safeguard Army supplies, began in August 1917 to do something for the civilians, and in 1918 it instituted a scheme for producing boots and shoes of good standard quality at a price considerably lower than that of 'non-standard' footwear. Towards the end of the war it introduced a standard clothing scheme also. However, this scheme had one fundamental weakness; there was no compulsion behind it; manufacturers and distributors need not enter this line of business unless they

wanted to. Since the business was a comparatively unprofitable one, not many of them entered it.

Civilian requirements of food demanded more drastic safeguards. By a series of administrative improvisations that can be traced back to the institution of the Sugar Commission in the very first month of the war, the Government in the end brought under its control 'nearly everything that men could eat or drink without being poisoned, and many things outside that category, such as feeding stuffs and beehive sections'. Rationing was imposed late in the war; it was not systematically and comprehensively introduced for sugar, fats and meat until July 1918. There may perhaps have existed in retrospect a tendency to magnify the achievement of the first Ministry of Food. It did nevertheless bequeath to its successor of 1939 a coherent body of administrative experience—a comprehensive divisional and local organisation, an elaborate costings machinery, the technique of rationing and the very form of the ration book itself. It also bequeathed a coherent body of doctrine, in which price control and rationing were two mutually supporting principles: for just as scarcity without price control must allocate supplies to the richer people, so also must price control, if unsupported by rationing, allocate them to the luckier, or the more cunning and pushful ones. Some of the men who had tested, proved and applied this doctrine in the latter years of the First World War were summoned, more than a decade later, to make preparations for applying it, at the very outset, in the event of a Second World War.

THE FUNDAMENTAL SCARCITIES

The purpose of the policies that have been outlined above was to ensure that military demands did not engulf supplies essential for maintaining civilian efficiency and that among civilians themselves these supplies were distributed equitably and efficiently. What we have called 'the horizontal extension of controls' aimed thus at a just equilibrium between the military and civilian sectors of the war economy and within each respective sector. Such an equilibrium could not be achieved merely by controlling end-products. The factors of production—materials, machinery, factory space, labour—had to be employed in a manner well calculated to satisfy at the same time both the expanded military demand and also the civilian demand, scaled down though the latter might sometimes be. If, in a particular instance, raw material appeared to be the immediate shortage, the larger or more pushing claimants upon it had to be prevented from over-riding other claims which, though more modest, were from the national standpoint equally valid. At the beginning of the war, the Services had thought themselves entitled to snatch the lot. Later on, the Service departments and the Ministry of Munitions

issued schedules of priority to guide manufacturers: class A, government orders: class B, orders for the export trade and other orders certified to be of national importance: class C, orders for civilian consumption at home. In an endeavour to make the classification effective, the officials issued priority certificates to manufacturers in respect of the contracts assigned to them. But the system worked badly. As scarcities grew more acute, the classifications of priority had to be refined—A₁, A₂, A₃ and so on. This refinement signified a more intense competitive scramble among claims of high priority, and at the same time made it all the more likely that claims in category C would get no attention at all. Yet these claims could not be set aside without ruinous effects upon the balance of the national economy; after all, the young women who were making army uniforms would themselves sometimes need new underwear and the farmers would need new machinery if they were to make a success of the food production drive.

The most effective answer to these problems was found in the allocation system, which was instituted, for example, for steel. To make the system work, each department had to state its total needs in respect of the production for which it was responsible and distribute what it received amongst all the producers. But what would happen when the statements of need submitted by all the departments exceeded the total of available supplies? Obviously, some departments or all of them would have to scale down their requirements and resign themselves to less ambitious programmes of production. Who would persuade them to do this? Who would define the magnitudes and proportions of comparative sacrifice? The system of allocation assumed the existence of a central, representative and impartial authority with competence to take decisions in the national interest upon the conflicting claims of rival departments. Such an authority could be derived only from the War Cabinet itself. The institutional adaptation of the Cabinet system in response to challenges of this nature will be explained in the concluding section of the present chapter.

For the present, it is the problem of scarcity that calls for further analysis. Those scarcities of raw materials that have been already discussed were, very frequently, derivative. Sometimes they could be traced to a deficiency of importing capacity, sometimes they were chiefly due to the scarcity of labour.¹

Defective importing capacity was a fundamental scarcity, a cause of many production bottlenecks and the cause of most of the food

¹ The falling production of coal was due both to a diminished labour force and to its diminished productivity. In 1913, approximately 1,107,000 British miners produced 287 million tons of coal; in 1918 approximately 990,000 produced 228 million tons. Annual output per man was 259 tons in 1913; 230 in 1918. Output per man shift (as estimated by the Mining Association) fell from 1.02 in 1914 to 0.86 in 1918.

shortages. It might be resolved into two elements, inability to pay, inability to transport—as the Americans put it a generation later, ‘cash and carry’. In the First World War the British were able to pay for a great deal, chiefly from the proceeds of their visible and invisible exports:¹ nevertheless, they were in the second half of 1917 seriously embarrassed by shortage of the means of payment, and were only relieved by the newly-found willingness of the United States Government, now a direct partner in war, to lend dollars without stint. Under these circumstances it seems in retrospect rather surprising that exporters of capital were handled very gently by the Treasury,² and that exporters of goods retained unrestricted freedom to use as they thought fit the foreign currencies accruing to them from their overseas sales. But in those days the rigours of exchange control had not yet been invented.

Still more serious than the shortage of foreign currencies was the shortage of shipping space. Between the beginning and end of the war the British Empire lost $7\frac{3}{4}$ million gross tons of shipping, which was more than a third of the tonnage which it possessed in August 1914. It failed to make these losses good by capture and new building: within the war period its total tonnage fell from approximately 19 millions to $13\frac{1}{2}$ millions. On top of this were the substantial losses of Allied and neutral ships.³ Attacks and sinkings by enemy submarines reached their peak in the spring of 1917, when they pushed the nation close to the margin of defeat; after that the danger was warded off by relentless fighting on the Navy’s part and by the imposition of drastic control over all the shipping serving the Allied cause. From the beginning of the war, the evolution of control had followed the growth of scarcity. In the first year, gains of tonnage had exceeded losses; there was a pressure of demand upon supply which was reflected in a sharp rise of freights, but on the whole the United Kingdom suffered inconvenience rather than danger. During this year British shipping, unless requisitioned for military and naval purposes, was allowed to run free. In the second year of the war, sinkings rose sharply until they reached the danger point, and the Government was driven by successive crises to requisition successive blocks of tonnage—first for meat, then for wheat, then for other essential supplies. In the third year of the war, the submarine attacks reached their climax and so did the Government’s measures of control. The

¹ Total British imports, 1915–18, were approximately £3,800 millions. For the same period, and in round figures, visible exports were £2,000 millions and invisibles £1,000 millions (between them three-quarters the value of the imports). Sales of securities amounted to £1,000 millions, export of gold stocks to the small sum of £40 millions.

² Remittance of money for investment abroad was not prohibited until November 1917, and even then the prohibition was not effectively policed.

³ New building in the U.S.A. to make good the losses did not get into its stride until the last months of 1918.

Ministry of Shipping was established in December 1916, universal requisitioning was proclaimed in February 1917, and by the end of the year the Ministry was sufficiently equipped with knowledge and administrative capacity to be the master of its task.

Yet the Ministry of Shipping was itself in search of a master. It had taken complete control of the ships; but it had no desire to take on its own shoulders the entire responsibility for allocating shipping space amongst all the competing claimants: that surely was a matter for high political decision, for it affected in the most crucial way the distribution of the nation's economic resources and the balance of the national war effort. So long as tonnage had remained relatively plentiful, the Services had been able to get all they asked for; but it was now high time to invite them, and if necessary compel them, to exercise rigorous economy. There were besides four ministries—the War Office, the Ministry of Munitions, the Ministry of Food, the Board of Trade—that had competing claims upon the diminished total of shipping available for United Kingdom imports. Of these four, it was the Ministries of Food and Munitions that demanded most. But how were their demands to be balanced one against the other, and against the demands of the two smaller competitors? The Ministry of Shipping was not itself equipped with the knowledge to estimate in fine quantities the nation's comparative needs of wheat or timber, palm oil or fertilisers or cotton. It might, and it did, invite each importing department to construct a reasoned programme of its own needs; but to measure the total needs of all departments, and to scale them down to the level of the available shipping space—in other words, to construct a *national* import programme—was too complicated and too responsible a task to be left to the arbitrary decisions of the Ministry of Shipping. It called for an impartial central authority, representing all interests but standing above the narrower conflicts of interest. Like other problems of the inter-departmental allocation of scarce resources, it could not be completely mastered without new institutional development within the framework of the British Cabinet system.

A review of the manpower problem will lead to a similar conclusion. The manpower problem has a universality peculiar to itself, all the more so because it represents something more than the basic factor of production: it is the fighting power no less than working power, it is the men and women of the nation. The search for the best methods of distributing it and using it to satisfy the requirements of war is not merely a technical problem of war economy; it is also a political problem of national consent.

The experience of 1914-18 showed that the manpower problem had two main aspects: first, how to strike a balance between the requirements of the rapidly expanding fighting services and those

of industry: secondly, how to strike a balance within industry itself. The immense importance of the first question may be illustrated by recalling the classically inept answer which Czarist Russia gave to it. The Russian population at the outbreak of the First World War has been estimated at about 175 millions, of whom the immense majority were peasants. Russia was pitifully poor in the industrial resources necessary for modern war; her output of steel was approximately five million tons as against Germany's 18 million, her output of coal 36 million tons as against Germany's 190 million. Her total industrial population was barely five million—three million in the factories, one million in the mines, and 800,000 railway workers. A realistic appraisal of the needs of war would have revealed the futility of building a fighting army excessively disproportionate in size to the industrial army; yet by 1917 the Czarist government had called to the colours thirty-seven per cent. of the male population of working age. It thereby condemned thousands and even millions of its soldiers to fight without adequate clothes, boots, and weapons, and it pushed large sections of the Russian people over that narrow line across which lay, even in time of peace, almost unendurable physical want.

No British Government could possibly have made such fantastically costly errors; for the British population, small though it was in comparison with the Russian, represented a much broader and deeper concentration of war-making power. Yet some of this power could be and was frittered away by haphazard allocation between the armed forces and industry. In August 1914 the principle of private decision was still unchallenged both in the military and in the industrial sphere; voluntary enlistment was the rule in the former, a free labour market in the latter. Before the end of 1914 the patriotic impulse had swept into the armed forces scores or hundreds of thousands of volunteers who would have served their country more effectively if they had remained in industry. The Service departments themselves were compelled to recognise that expansion of the numbers of men in uniform was of no use to them unless it were accompanied and backed-up by a corresponding expansion of war industry—an expansion that indiscriminate recruiting had already put in jeopardy. As early as December 1914 the Admiralty began to issue badges for distribution among the men whom its production managers wanted to protect from the recruiting drive; in March 1915 the War Office followed the Admiralty's example; later in the year the Ministry of Munitions took over the badge-issuing business. Meanwhile, other techniques for the protection of industry were being worked out—the listing of trades whose members were debarred from enlistment in the armed forces and the listing of firms whose employees were similarly debarred, unless an employer chose to issue a certificate testifying that such-and-such a man might be

spared. All these devices were extended by the Ministry of Munitions until they covered not only the men and the firms directly engaged in the production of weapons, but the men and the firms engaged upon the early and intermediate processes of war production—machine tools, iron and steel, gas, electricity and the like. By the summer of 1915 the balance had excessively shifted and had become too heavily tilted against the recruiting sergeant. The armed forces needed 1,500,000 recruits and Lord Derby was given the task of bringing them in. He brought in no more than 800,000. This failure was the prelude to military conscription, introduced in May 1916 by the National Service Act. Even then, a year was still to pass before effective means were found of striking a balance between military and industrial manpower in accordance with the major policies adopted by the War Cabinet. The work was taken in hand during 1917 by the newly-established Ministry of National Service. It straightened out the tangled systems of departmental exemption and established a unified and rationalised Schedule of Protected Occupations. This schedule listed all the civilian occupations deemed essential to the war effort, and at the same time varied the degree of protection granted to the listed occupations by appropriate special treatment of different age groups and medical classes. The flexibility of the system was increased in February 1918 by the introduction of withdrawal orders, which could be used to diminish the protection given to individual occupations, or to remove it altogether.

Here at last was a rational and effective arrangement for maintaining the just equilibrium between military and industrial demands upon manpower. The principles of the Schedule of Protected Occupations were kept between the wars as the basis for detailed planning of the new Schedule of Reserved Occupations that was introduced in 1939. But no correspondingly firm code of practice was handed down from the First World War to regulate allocations of manpower within industry itself. On the military side, the principle of compulsion had since 1916 been accepted as the basis for all regulative policies; on the industrial side, the First World War ended, as it had begun, with allegiance to the principle of a free labour market. In practice, that principle had been subjected to some important qualifications; indeed, some expert students of British war experience were inclined to believe that it had been too much tampered with. In the winter of 1939-40 most people interpreted the experience of the First World War as proving that 'Britons'—and in particular British workmen—'go farther led than driven.'¹

The control of labour during 1914-18 had been far more a matter of prohibitions than of positive commands. The shortage of skilled

¹ Sir William Beveridge, *Some Experiences of Economic Control in Wartime* (Sidney Ball Lecture, February 29, 1940), p. 9.

munitions workers had brought about quite early in the war a fairly wide-spread agreement to three general propositions: first, that labour must not be wasted in strikes and lock-outs: secondly, that it must not be permitted to shift at will from job to job without regard to the relative importance of the jobs and to the need for continuity in production: thirdly, that skilled labour must be diluted. Each of these conditions set a limit to the traditional peace-time freedom of employers and workers by telling them that they must not do certain things. Together, the three conditions added up to an important limitation upon the normal operation of the labour market. But they did not abolish the market. There was a world of difference between telling labour that it could no longer shift about at will, and telling it that it would be shifted about according to the will of the Government and the need of the nation. Moreover, even the three negative conditions referred to above were never applied in their entirety. A beginning was made in the 'Treasury Agreement' of March 1915, whereby the trade unions of munitions workers accepted the first and third conditions; that is to say, they agreed to give up strikes in favour of arbitration, and to relax trade practices that hampered the dilution of skilled labour, in return for undertakings safeguarding the long-term rights of labour and imposing short-term restrictions upon employers' profits. All these provisions were repeated and expanded in the Code of Labour Regulation contained in the Munitions of War Act, 1915. In the same act was contained the first serious attempt¹ to fulfil the second condition of labour economy, namely to control the disorders arising from the continuous shift of workers from job to job. A workman's freedom of movement would henceforth be limited by requiring him to obtain from the employer he was leaving a certificate testifying to the employer's consent; if he failed to obtain this certificate, he would not be permitted to take a new job on munitions work within six weeks of his leaving the old one. This clumsily drafted prohibition was later improved upon; but the more it was improved upon the more resentment did it provoke among the workers. In August 1917 it was revoked, for the sake of industrial peace. So ended the only serious attempt to impose a negative control upon the right of British workers to change their jobs. The positive business of getting the right workers into the right jobs was left throughout the war to the ordinary economic incentives, reinforced by some advertisement and patriotic drama.² To conclude: 'pulls' were a much stronger motive power than 'pushes' in the labour migration of 1914-18.

¹ Employers had since April 1915 been restricted in their 'poaching' activities.

² e.g. the War Munitions Volunteers Scheme of 1915 and the War Work Volunteer Scheme of 1917: the former was for skilled men only, the latter for skilled and unskilled; both reinforced the patriotic appeal with various practical inducements.

It was, nevertheless, by all previous standards of comparison, a great migration. Between the beginning and the end of the war voluntary enlistment and conscription had between them raised the armed forces from below half a million to above $4\frac{1}{2}$ million men, and economic incentive had increased the labour force in the munitions trades from approximately two million to three million men and women, despite the heavy losses of men to the Services. There had been correspondingly heavy shifts of labour within and between the other industrial groups, and a large intake into industry from the non-industrial section of the population. Detailed measurement of all these changes is not possible, owing to the absence before 1914 of the statistics that became available later through the unemployment insurance scheme; but a fairly comprehensive enumeration can be given for the last year of the war. It is summarised here to give a basis of comparison with the more intense effort of the British people during the Second World War: to make the comparison easier, the classifications of that later time are followed, so far as the figures permit.

Mobilisation of Manpower in 1918

(Men 14-64, Women 14-59)

	MEN		WOMEN		TOTAL	
	Millions	%	Millions	%	Millions	%
Armed Forces and Civil Defence	4.60	34.1	0.10	0.7	4.70	16.9
Group I industries	2.12	15.7	0.91	6.3	3.03	10.9
Group II industries	3.05	22.6	0.70	4.9	3.75	13.5
Group III industries and non-industrial population	3.72	27.6	12.64	88.1	16.36	58.7
Total	13.49	100.0	14.35	100.0	27.84	100.0

NOTES:

1. Group I covers metal manufacture, engineering, motors, aircraft and other vehicles, shipbuilding and ship-repairing, metal goods manufacture, chemicals, explosives, oils, etc.
- Group II covers agriculture, mining, National and Local Government services, gas, water and electricity supply, transport and shipping.
- Group III covers food, drink and tobacco, textiles, clothing and other manufactures, building and civil engineering, distribution trades, commerce, banking and other services.

2. See also Table 2(b) on p. 78.

Source: Ministry of Labour

The intensity of effort which these figures signify would have seemed 'beyond all credibility' to Patrick Colquhoun, the statistician who measured the British effort against Napoleon—a mighty one

also, in its own time; but between 1815 and 1918 had been dug the deep gulf of industrial change. No such gulf separated 1918 from 1945—or the early months of 1945, one ought perhaps to say: the portent of Hiroshima changed many things. Until Hiroshima, there was a similar tale to tell of the two wars. Similar, but not identical; for in the second war all the magnitudes of British endeavour were larger, and the cost heavier in everything except young life.¹

The methods, also, were in the Second World War more workman-like, more professional. In 1940, liberty's year of crisis, the British people surrendered to the Government as their trustee those lesser liberties that their fathers a generation back had clung to as inalienable rights. Economic control was enabled henceforward to penetrate the national life more deeply, even to the very roots of manpower scarcity. Moreover, there was in this second and sterner testing time a conscious doctrine of means and ends, a coherent explicitness of purpose informing and unifying the wide-spreading pattern of controls. The men of 1914-18 had not possessed such clarity of intellect and purpose. How, indeed, could they have possessed it? If in imagination one looks forward from August 1914 to November 1918, one is impressed by the utter strangeness of the economic country into which the nation had marched—or been marched—during those four years. There had been no map to guide the march. The political economy of war came into existence as a fact before it was conceived as an idea. Hundreds of improvisations originating in shortages of sand-bags or shells or food, and the more fundamental scarcities of shipping and manpower, had fallen together into a pattern. Very few people saw them as a pattern; fewer still understood the logic that informed it.

(iii)

Towards Co-ordination

To conclude this chapter, it is necessary to change the angle of approach and write straight constitutional history. Hitherto the approach has been from the particular to the general; the growth of war economy has been apprehended as the accumulation of those particular concrete problems of supply and distribution that vexed individual departments. This has been the most realistic method of approach, because it follows very closely the actual processes of growth. The officials who were responsible for the procurement of

¹ For an attempt to compare the respective magnitudes of British economic effort in 1914-18 and 1939-45 by the measurements of national income estimation, see A. J. Brown, *Applied Economics* (London, 1947), pp. 46-54.

sand-bags and a thousand other articles of military use found themselves compelled to substitute administrative control for the self-regulating mechanisms of supply and demand: as trustees of public money, they took action to combat the inordinate rise of prices; as trustees for the lives of British soldiers and sailors, they took action to ensure that necessary supplies were produced in the necessary quantities. Their successes in the field of military procurement created shortages in the field of civilian supply: other officials were thereby compelled to take action to supersede the ordinary mechanisms of production and distribution, if need be substituting rations at a fixed price for effective monetary demand, which in conditions of severe scarcity would have condemned to starvation the poorest classes of the population. In the old departments of government, and in new departments specially created to meet the needs of the time, the control of particular products, productive processes and instruments was extended vertically and horizontally until the activities of the multitudinous controllers overlapped and conflicted with each other. Indeed, so soon as the scarcities that vexed individual departments were identified as shortages common to them all, it became apparent that the unchecked competition of departmental administrators would cost the nation no less dear than the unchecked competition of individualist buyers and sellers. When shipping became a fundamental and universal shortage, a new and impartial authority of control, the Ministry of Shipping, was established to requisition all ships. But this was only a partial remedy, for the new ministry found itself faced with competing departmental demands for more shipping space than it was able to supply. Its own inexpert decisions upon the rival claims of wheat and timber and steel and the rest satisfied neither the claimants nor itself: the need was for a representative and authoritative body that could promote agreed decisions on the basis of a complete balance sheet of resources and claims. This body came into existence, towards the end of 1917, as a committee of the War Cabinet under the chairmanship of Lord Milner. But it could never have come into existence—nor could those other War Cabinet committees which tackled other crucial problems—unless there had first occurred a modernisation of British Cabinet government in response to the challenge of war. This modernisation is a matter of supreme importance for the British war economy. Its origins must be traced back into the decade before 1914.

THE COMMITTEE OF IMPERIAL DEFENCE

At the opening of the twentieth century the theory of the Cabinet system was clearly understood, but the growing burdens and complexities of government were endangering the system's practical efficiency. The Cabinet had three main functions to perform: final

determination of the policy to be submitted to Parliament, supreme control of the national executive in accordance with the policy prescribed by Parliament, co-ordination and delimitation of the activities of the separate departments of state.¹ The Cabinet had also its theory of procedure. Its responsibility was collective; its decisions were decisions to advise the King, and could not therefore be published without the consent of the King. These theories of procedure expressed themselves in an extreme sketchiness, not to say haphazardness, of business method. The Cabinet met without any agenda papers or memoranda listing and setting forth the issues it would have to decide; it separated without leaving any systematic record of its decisions. It had no other secretary than the Prime Minister himself, who brought to each meeting a list of the main items that he and his colleagues wished to discuss, and after each meeting wrote a letter to the King, informing him of the main conclusions.

No doubt the Cabinets of Mr. Gladstone's day were able to get through their business efficiently with these traditional procedures; the Cabinets of Mr. Asquith's day were not. The serious disorders that were apparent even before the First World War have been described by Lord Haldane:

... The Cabinet was organised on an old system which I hope will never be restored. It was a congested body of about twenty, in which the powerful orator secured too much attention. The Prime Minister knew too little of the details of what had to be got through to be able to apportion the time required for discussion. Consequently, instead of ruling the Cabinet and regulating the length of the conversations, he left things much to themselves. We had no Secretary, no agenda, and no minutes in these days ...

... The result of this and the want of system which it produced was that business was not always properly discussed, and the general points of view that vitally required clear decision almost never.²

Lord Haldane, it is true, had a mind unusually strong in system; not all his ideas about the reconstitution of the government machine have won universal acceptance. Nevertheless, it would be generally agreed that the words quoted above give a true general impression of the amateurishness of Cabinet procedure early in the twentieth century. Exponents of the British system of government were accustomed to praise its judicious combination of the amateur and the expert; but the experts were all in the departments, none of them at the centre. The Admiralty had its experts on naval warfare, the War Office had its experts on land warfare; but there did not exist any staff of experts charged with the duty of aiding the Cabinet in the

¹ Here we follow closely the words of the *Report of the Machinery of Government Committee*, 1918 (the Haldane Report), p. 5.

² Lord Haldane, *An Autobiography* (London 1929) p. 216.

formulation of a defence policy that would combine the efforts of these two departments and all the others that had a part to play—the Foreign Office, which in peace and war alike had to secure diplomatic combinations conducive to the safety of the Empire, the Treasury, which had to provide the finance for British wars and mitigate as best it could their disturbing effects on economic life, the India Office and the Colonial Office, which were immediately concerned in the peace, order and good government of the King's Dominions overseas. In theory, the ministers in charge of these departments could make their views effective in the general policy of the Cabinet: in practice, the Cabinet had no means of bringing into focus all these scattered elements in the intricate problem of defence. By the standards of the harsh world that encompassed states and nations in the twentieth century, Great Britain was an inefficient performer in the tasks of national and imperial defence. This was the verdict of an authoritative committee appointed under the chairmanship of Lord Esher on the conclusion of the South African War. The committee declared roundly that the Cabinet had entered upon the war without possessing 'adequate means of obtaining reasoned opinions on which to base a war policy'.¹

This was not the first occasion on which the evils of military departmentalism had been denounced, and remedies for the evils propounded. In 1890 Lord Randolph Churchill had put forward a scheme for bringing the Admiralty and the War Office together under a single Minister of Defence.² The Government had rejected this proposal and had tried instead to achieve co-ordination by means of a defence committee of the Cabinet; but the Esher Committee pronounced this compromise a failure. Its own diagnosis and recommendations led to the institution of a very different body, the Committee of Imperial Defence.³ This was a 'Prime Minister's Committee' working within the orbit of the Cabinet. The Prime Minister himself, as the Committee's invariable president, had unfettered freedom to choose his collaborators, both on the main Committee and on the numerous sub-committees which it proliferated. The Committee was in consequence an institution of infinite flexibility; it was able to absorb into its service the best experts in any and every branch of defence policy. It had at the same time a hard centre of continuity, a permanent nucleus consisting of half a dozen ministers

¹ *Report of the War Office (Reconstitution) Committee* (1904) Part I, p. 3.

² Lord Randolph's memorandum was attached to the report of the Hartington Commission (Command Paper 5979 of 1890).

³ In this chapter and the next, the Committee of Imperial Defence will be called simply the Committee, with a capital letter. Its sub-committees will usually be called committees, without the capital. The purpose is to make the text simpler, and also to avoid using in it the letters C.I.D., which, to most readers of English newspapers and detective fiction, suggest a different institution.

and the permanent heads of the fighting services.¹ Moreover, in accordance with the recommendations of the Esher Committee, it had been equipped with a secretariat specifically charged to perform the following duties: to preserve a record of all deliberations and decisions; to collect and co-ordinate information on all aspects of the defence problem; to prepare such memoranda or other documents as the Committee might require; and in general to make possible 'continuity of method' in the treatment of every question that came before the Committee.² In fulfilment of these responsibilities, the secretariat built up a business-like code of practice. Before each meeting of the Committee, an agenda paper was printed and circulated with accompanying memoranda covering the main items of business. After each meeting draft minutes were printed, circulated among those who had been present, and then reprinted after correction. The meetings of the sub-committees were prepared and recorded with corresponding care. All the records were carefully indexed and cross-referenced: in consequence, it is now possible to trace from its first appearance up to the present day the origins and development of every problem that has come within the purview of the Committee of Imperial Defence—not only the main Committee, but the subordinate committees also.

In addition to the full copies of minutes sent to the persons who attended meetings, relevant extracts from the minutes and memoranda were sent to all the departments that would have to take action if the Committee's recommendations were to be made effective. Only a minority of the recommendations involved matters of high political significance, calling for decision on the collective responsibility of the Cabinet; the great majority could be implemented by departmental action on the responsibility of individual ministers. The Committee did not in any way trench upon the doctrine of ministerial responsibility. It could only recommend; it possessed no executive powers whatsoever. 'It has no power', Mr. Arthur Balfour explained to the House of Commons, 'to give an order to the humblest soldier in His Majesty's Army, or the most powerless sloop under the control of the Admiralty.'³ These limitations upon its formal powers became the foundations of its real authority. Because it could do no more than advise, it was permitted and indeed encouraged to extend the range and depth of its investigations; because its investigations were comprehensive and

¹ In addition to the Prime Minister, the following ministers attended regularly: the Secretary of State for War, the First Lord of the Admiralty, the Chancellor of the Exchequer, the Secretaries of State for Foreign Affairs, India, and the Colonies. Lord Esher also attended regularly from 1906 to 1914.

² These functions of the secretariat were defined in the Treasury Minute establishing it, 4 May 1904.

³ H. of C. Deb. 1904, Vol. 139, Cols. 618-19.

thorough, it tendered advice which was authoritative and difficult to reject. Statesmen from the self-governing Dominions would have refused to participate in the work of the Committee if it had claimed 'the smallest authority to impose obligations'; but in 1911 they attended its meetings with the feeling that they were entering as equals into the *arcana imperii*. Departmental ministers and officials who would have resisted any invasion of their legal responsibilities collaborated freely with the Committee in the study of those innumerable problems of defence that spread across departmental boundaries. If any department had shown itself unreasonably recalcitrant there would, of course, have been a remedy; the Committee's permanent nucleus of senior ministers was a guarantee that its recommendations would not be in serious discordance with government policy; in cases of dispute, the Cabinet could be invited to give a binding decision. The very existence of a reserve power to settle disputed issues at the highest level is a guarantee that the majority of issues will be settled by amicable discussion at a lower level.

The greater part of the Committee's investigations was devolved upon its subordinate committees: from July 1909 to August 1914 approximately thirty of them were set up for the study of specific problems.¹ Their total membership was about 130 persons, not counting all the experts who were summoned before them to give evidence. It was the function of the secretariat and the main Committee to bring their specialised findings into focus with the central plan of strategy. The results of all this work were written into the Government War Book and the departmental war books. In this way the Cabinet had before it a complete picture covering the short-term war plans of all departments. Departmental ministers and their senior officials knew precisely what buttons they would have to press upon the imminent approach of war and upon its outbreak.

But after that? Since 1907, the Committee had based its planning upon the strategical hypothesis of German attack; but no more than the German General Staff had it forecast the full strategical and economic implications of warfare in the twentieth century. Of the five assistant secretaries who served in the secretariat of the Committee, each one held army or naval rank—a sign that the study of war was still confined too narrowly within the sphere of interest of the fighting services. The Committee in all its studies had never envisaged the unprecedented scale of effort that would be demanded

¹ The majority were committees *ad hoc*; but there were also some standing committees, e.g. Overseas Defence Committee, Home Ports Defence Committee, Standing (Technical) Sub-Committee, and Standing Sub-Committee on the Co-ordination of Departmental Action on the Outbreak of War.

from British military and industrial manpower and the radical reshaping of British economic life that this effort would make necessary. Nor had it made any suggestions for reshaping the executive government of the country to meet the strain and challenge of war.

THE WAR CABINET

In the summer and autumn of 1914, the supreme direction of the war still lay with a Cabinet of twenty or more persons, meeting and deliberating in the old haphazard way, without agenda papers or memoranda or a precise record of their conclusions. So long as action was able to run along the lines laid down in the War Book, this diffuseness of the supreme control was endurable; but the need for a firmer grip upon war policy was felt increasingly as 1914 drew towards its close. The first effort at reform was made in November 1914, when the Prime Minister instituted a War Council. This body gave place in the following May to the Dardanelles Committee, which, in its turn, gave place (November 1915) to the War Committee. The names changed more than the things. War Council, Dardanelles Committee and War Committee—all three signified an attempt to reinforce the system of Cabinet government with the mechanisms of the Committee of Imperial Defence. All three took over the secretariat of the Committee, with all its procedures and techniques. They took over also the same principle of membership. An inner group of ministers sat regularly with the Service chiefs—here was the nucleus of knowledge and authority—but other influential and well-informed persons were also called in, even from the opposition party.¹ One serious mistake was made, despite a conscious effort at amendment: this was the excessive puffing out of membership. Probably the mistake arose from the desire to reconcile the contrary principles of swift action through a committee of the Cabinet and collective responsibility of the whole Cabinet.² The attempt failed. Everything of any importance was gone into twice, first by the War Committee, which had excellent information but no power of final decision; secondly by the Cabinet, which had the power of decision but inadequate information. The fundamental flaw of this arrangement was the divorce between study and action, deliberation and decision. 'Every operative decision', Mr. Churchill wrote later, 'was obtained only by prolonged, discursive, and exhausting discussions.'

¹ Mr. Balfour attended regularly; other opposition leaders (Lord Lansdowne and Mr. Bonar Law) were called in on a special occasion.

² Mr. Asquith put the dilemma thus: (H. of C. Deb. 1915, Vol. 75, Col. 526) 'I think a Committee such as I have indicated ought to be clothed with power to take such decisions and to act upon them. On the other hand, I am very jealous of the maintenance of collective Cabinet responsibility for large changes and new departures in policy; . . .'

Far more often we laboured through long delays to unsatisfactory compromises.¹

The change of government in December 1916 marked the end of these frustrations. From that time onward the nation was served by a really modernised instrument of government. Of course, the value of mechanisms must not be overrated: in times of crisis, personality reasserts its rights: it is motive power, not the machine, which counts for most. But the motive power will in large measure run to waste if the machine works badly. Mr. Lloyd George knew that. He gave himself a good machine. In his War Cabinet of four to six members was vested the supreme power of decision. The War Cabinet took into its own direct service the organisation and techniques and procedures built up during the past dozen years by the Committee of Imperial Defence and its war-time heirs. So at last were gathered together all those elements of power that hitherto had been dispersed—power to know, to plan, to decide.

At that time, and later, one special feature of the War Cabinet made a deep impression: the fact that most of its members were free from departmental responsibilities and able in consequence to concentrate their undivided attention upon war policy. In this arrangement there was, however, a danger that a new gap might appear between functions which ought to be integrated—not, this time, a gap between deliberation and decision, but one between decision and execution: for might it not happen that the ministers in the War Cabinet, since they had no departmental responsibilities, would make decisions that the departmental ministers would find unrealistic and difficult to embody in executive action? This danger was mitigated by the practice of summoning departmental ministers into joint session with the War Cabinet whenever their special departmental responsibilities were likely to be affected by its decisions. Often, the ministers attended with their senior officials, or with any other experts they cared to bring along—another mark of the flexibility inherited from the Committee of Imperial Defence.²

To place most of the emphasis upon the freedom of War Cabinet members from departmental responsibilities betrays a lack of proportion. Later, in the Second World War, a different system was adopted. It may be left to the professional students of government to argue with each other as to which system is ideally the best: the historian perceives continuity of method, in the more essential things, between the War Cabinets of 1916, 1939 and 1940. Common to them all was the

¹ *The World Crisis*, Vol. II, p. 384.

² In the first year of its existence, the War Cabinet held 300 meetings; in the same period, 248 persons, other than members of the War Cabinet, are listed as attending. Command Paper 9005 of 1918, p. 2.

efficient centralisation of knowledge and decision. Yet even this was only part of the institutional reformation achieved in December 1916. Parallel with the concentration of supreme authority there occurred a hardly less striking devolution and functional regrouping of administrative responsibility. The Ministries of Labour, Shipping, and Food were all created in that same December: they were followed next year by the Ministries of Air, National Service, Pensions and Reconstruction. In this way ministerial responsibility was concentrated at new focal points of national danger and need. Some of these focal points have been identified already from the angle of economic inquiry: they stand in close relation to the fundamental scarcities of the war economy. And, since these scarcities were the common preoccupation of groups of departments, it would be natural to expect constitutional provision to associate the interested departments in the business of studying and handling them. As has been stated earlier,¹ this association in the handling of the shipping problem was in fact achieved in 1917 through a committee of the War Cabinet under the chairmanship of Lord Milner. Subject where necessary to review by the War Cabinet, this committee had devolved upon it full authority to allocate shipping space among claimant departments in such a way as to fulfil the strategic and economic policies that the War Cabinet laid down. A similar association of the agencies most immediately concerned with war production was achieved by instituting under the chairmanship of General Smuts a committee of the War Cabinet to determine production priorities—a problem that broke up into a large number of particular technical problems which were devolved upon many expert sub-committees. It would be out of place here to attempt to survey in detail the luxuriant growth of War Cabinet committees and their sub-committees in 1917 and 1918. Suffice it to say that they were an essential part of the constitutional pattern of a modernised war government: concentration of decision in the War Cabinet, decentralisation of operative function among the departments, co-ordination of related functions through committees of the War Cabinet.

The problem of liaison between the War Cabinet, its committees, and the executive departments was extensive and intricate. The record of all decisions needed to be exact; each responsible authority had to be informed promptly of every decision in which it was concerned; a check had to be kept upon action taken to implement decisions. These were some of the duties of the greatly expanded secretariat, a body that still conformed to its original nature, made no invasions of executive territory, but made itself instead a specialist in sign-posting and clearing the traffic of government business. The

¹ See above, p. 30.

secretariat now had a strong civil side—another sign, among so many, that modern war was rubbing out the sharp lines of division between ‘Service’ and ‘civil’ activities.

CO-ORDINATION AMONG ALLIES

Modern war was at the same time smudging over, if not rubbing out, some of the lines that normally divided the national administrations of the Allied countries. At the highest level, this tendency expressed itself in the Supreme War Council, which was instituted in November 1917 by an agreement of Great Britain, France, and Italy, to which the United States gave, later on, a limited adherence. The Council was constituted by the Prime Ministers and one other minister from each of the three Allied Governments, meeting at monthly intervals with their military advisers and other attendant experts. Its work was given continuity by a secretariat operating on the British model and was reinforced by other elements built up from the national administrations. For example, from the Service staffs was constituted ‘the Permanent Military Representatives’, a planning body which, before the appointment of Marshal Foch as Generalissimo, was the chief instrument for the co-ordination of Allied operational studies and plans. Attached to it were inter-Allied technical committees for such subjects as aviation and tanks. Later on, a Naval Council was constituted with its headquarters in London; it consisted of the ministers and chiefs of naval staff of the co-operating countries. Side by side with it was set up a Blockade Council, similarly composed. Neither these subordinate Councils nor the Supreme War Council itself had executive powers. They could not transmit orders to the national governments. However, the policies they authorised had in practice the effect of government decisions because the highest political authorities of the participating countries were parties to them: when the Prime Ministers came to an agreement at Versailles they could make the agreement effective in a decision taken by their own Cabinets; when the naval ministers and their staffs accepted a common policy at London they could put the policy into effect through action of their own national administrations. What was taking place was not the constitution of a new supra-national administration, but the mutual interpenetration of national administrations, acting in concert with the aid of pooled information for the realisation of common aims.

On the economic side, a similar system came gradually into existence.¹ It was foreshadowed early in the war by the *Commission Internationale de Ravitaillement*, an inter-Allied committee of technical

¹ The system was founded primarily on the work of the British shipping administration, and the best exposition of its development and character is Sir Arthur Salter's book on *Allied Shipping Control* (Oxford, 1921).

officials which met in London to ensure orderly procurement of British and overseas supplies instead of a competitive scramble. In virtue of their commercial connections and shipping predominance, the British had special responsibilities towards their Allies. A narrowly nationalist economic policy which secured the United Kingdom's stocks of wheat but left Italy to starve would have been inconsistent with strategical policy; there had to be some pooling of resources for the sake of the combined strength of the Allied war effort. The difficulty was to find an objective measurement of comparative needs. When the shipping shortage became acute, the heaviest strain of decision fell upon the British shipping authorities. From the early days of the war they had been making doles of tonnage to reinforce the mercantile marines of the Allied nations; by the end of 1917 they were ready to apply in the inter-Allied sphere the principles of allocation which had recently been worked out at home. The pooling of shipping resources was accepted in principle and an Allied Maritime Transport Council was set up to make the principle effective. Its members were the appropriate ministers in the participating countries, meeting periodically with their attendant experts, and its work was given continuity by a permanent 'Executive' in which senior officials of the national shipping administrations worked in continuous association with each other. Once again, this was not the creation of a supra-national administration but the interpenetration of national administrations, the bringing together of men and minds and the consequent creation of genuinely combined estimates of requirements and resources.

In the inter-Allied, as in the national sphere, precision of the estimates depended not merely upon the careful reckoning of available tonnage but upon the reckoning and adjudication of competing claims upon the tonnage. The techniques of national programming had to be adapted to the wider requirements of the alliance. One valuable precedent was available. A Royal Commission on Wheat Supplies had been set up in 1916 to safeguard the nation's bread. It had imposed a firm control over all sources of supply, and very soon it had become the basis for an inter-Allied body called the Wheat Executive, responsible for measuring and meeting the grain import requirements of all the Allied nations. In the spring of 1918 a whole series of inter-Allied 'programme committees' was instituted on the same model—for textiles and timber, for petroleum and coke, for sugar and meat and oil seeds, for metals and chemicals—indeed, for all the chief categories of imports: there were in all twenty distinct programme committees. Later in the year, the majority of them were gathered into two groups—one under a Food Council, the other under a Munitions Council. Seen from the British angle, these two Councils reflected in the international sphere the grouping of

commodity controls under the Ministers of Food and Munitions. The new Councils, like their predecessors, were constituted by the appropriate ministers of the participating countries and they were given the same continuous expert service. By their constitution, the design of inter-Allied economic administration was made almost complete. Formal completeness was attained when the Supreme Economic Council was constituted in the early months of the armistice. By that time, however, the war-time dominance of the shipping shortage was already giving place to peace-time difficulties of payment, and the war-time conviction of a community of need was rapidly withering away. The imposing structure of economic collaboration did not survive for long.

But the memory of its war-time achievements survived, and so did the painfully acquired mastery of principles and methods. Some of the men survived. In the autumn of 1939, Frenchmen and Englishmen who had shared the experience of a great constructive partnership set to work to renew and extend that partnership in the second testing time of their two nations. When France fell, the same experienced heads—not only British but French¹—found that they had still the same constructive work to do in laying the foundations of economic partnership between the United Kingdom and the United States. The story of their work will be told in later chapters of this book. It will give an impressive illustration of the continuity of historical experience in this century.

¹ See below, p. 196.

CHAPTER II

BETWEEN THE WARS

(i)

The Processes of Planning

THE British machine of government had been drastically overhauled and reconditioned to meet the strain of war, and there were many persons of experience who thought that the same reconditioned machine should be retained to serve the nation in peace. Indeed, there were some who envisaged a still newer model of streamlined efficiency. Lord Haldane's Machinery of Government Committee enumerated twelve primary government functions, and for each function designated one responsible minister, acting through a single department of his own or through a number of departments grouped under his supervision: twelve functions, twelve senior ministers; in consequence, a Cabinet of twelve; and the Cabinet would be served by its modernised secretariat. But the actual trend of day-to-day politics was in a quite contrary direction. Within a year of the armistice, the old pre-war Cabinet of twenty or more ministers reappeared upon the scene. Before long, a hundred or more Conservative M.P.s were raising a clamour against the Cabinet secretariat.

Not without difficulty, this back-to-Gladstone movement was in the end repelled. Had it succeeded, the effects upon government efficiency would have been damaging. The period 1919 to 1939, compared with Mr. Gladstone's day or even with Mr. Asquith's, witnessed a formidable intensification of the pressure and strain of public business. In the years preceding the First World War meetings of the Cabinet had added up on the average to about forty a year: between the First and Second World Wars the yearly average of meetings was nearer sixty. Moreover, the list of important subjects coming up at each meeting for discussion and decision was now very much longer than it had been in the earlier period. Time might have been bought at the expense of the departmental and parliamentary duties of ministers by extending Cabinet meetings in length; but this was not done; the usual duration of a meeting remained two hours. All the more necessary was it to ensure that these two hours should give full value. Remission of some problems to committees of the

Cabinet,¹ careful allocation of time among the problems demanding the Cabinet's direct attention, the elimination of all details that could be settled in advance by interdepartmental discussion, the focusing of the main questions of principle—all these procedures depended in whole or in part upon action through the mechanism of the secretariat.

The same mechanism served the Committee of Imperial Defence,² which upon the supersession of the War Cabinet in November 1919 had reassumed its old peace-time personality as a body dedicated to investigation and advice. Twenty years later, the Committee still conformed both in structure and in function to its original constitution. To quote an authoritative lecture delivered by its secretary early in 1939:

... The fundamental principles of the Committee of Imperial Defence are precisely the same as when it was first conceived; it is infinitely elastic; the Prime Minister is still its invariable President; he still has absolute discretion as to the selection and variation of its members; and there is still a small—though admittedly not quite so small—permanent Secretariat.³

But, side by side with this continuity of principle, there went an impressive extension of the Committee's organisation and range of activity. Its permanent panel was still the same amalgam of ministers and experts; but it had been enlarged to nearly twenty members. Its sub-committees had greatly multiplied. Their ramifications involved an increasing number of participants (in the year 1938, the total was not far short of 900) and covered a range of subjects far wider than in the pre-1914 years. This multiplication of sub-committees arose by necessity from the facts of modern war:

The problems of defence are so many and so varied that no single man, and indeed no fixed body of men, however numerous or however well informed, can of themselves possess the knowledge to arrive at correct decisions, unless they are provided with expert advice on the various aspects of each particular problem. Such advice can only be obtained by assembling the team most appropriate to each case.⁴

¹ From 1919 onwards there were on the average about twenty committees a year: most of them were appointed *ad hoc* and wound up after they had submitted a report to the Cabinet, or in some other manner completed their assignment of work; but there were also some standing committees meeting over a period of years—e.g. the Home Affairs Committee, which, first appointed in July 1918 with wide powers of action, continued throughout the inter-war period with more restricted powers of scrutinising and getting into order the legislative proposals of the Government.

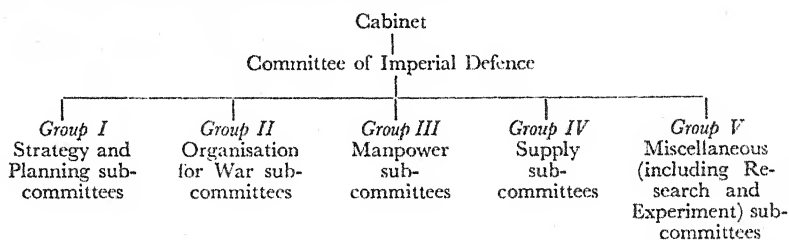
² In the Offices of the Cabinet and Committee of Imperial Defence there existed, strictly speaking, two parallel secretariats; but both were under the same office head (as was later the secretariat of the Economic Advisory Council).

³ 'The Machinery of the Committee of Imperial Defence', by Major-General H. L. Ismay, C.B., D.S.O., in *Journal of the Royal United Services Institution*, May 1939, p. 10.

⁴ *Ibid.*, p. 13.

The great majority of these teams included civilian members: Mr. Baldwin calculated in 1928 that, out of fifty or more sub-committees then existing, only one was confined entirely to Service representatives, and that, out of the last 100 questions that even this committee had considered, there were only five that did not involve civilian departments.¹ Indeed, the new conception of war that had been born from the experience of 1914-18 was wiping out the sharp line of division between 'Service' and 'civilian' activities. The men who understood modern war knew that the armed forces of the nation were no more than 'the cutting edge' of a mechanism that included all the departments of state and all the national energies that those departments controlled. Since modern war demanded mobilisation of the total resources of the nation, the task of studying it and preparing for it must involve investigations penetrating every sector of the national life. There was of course a danger that the wide dispersal of these investigations would overstrain the machinery of co-ordination. In theory, this danger was fended off by the vigilance of the Committee's secretariat and by the continuous attention of its permanent panel: all the separate bits and pieces of the defence problem that the sub-committees assembled were welded together by the main Committee. Whether or not actual practice was always in conformity with the theory is a matter on which later chapters of this narrative will throw some light.²

The Committee's range of activity can be broadly envisaged from the main heads of its organisation chart:



The chart could be elaborated in ramifications covering a crowded page. Under the first head, the Chiefs of Staff Sub-Committee and its subordinates, the Joint Planning and Joint Intelligence Sub-Committees, would be included; under the second, there would be grouped sub-committees on half a dozen important subjects ranging from censorship to civil defence; under the fourth, there would be listed sub-committees for such distinct subjects as munitions supply for all three Services (the Principal Supply Officers' Sub-Committee), food supply, and oil supply. And some of these sub-committees would

¹ H. of C. Deb. Vol. 215, Col. 1026.

² e.g. for the difficult case of shipping, see below, Chapter IV, Section (iii).

themselves be at the head of immensely complicated family trees of subordinate committees. There would, however, be little profit in composing a systematic diagram of all these ramifications. The trouble with such a diagram is its tendency to suggest that a place has been found for everything and that everything is in its place—a blessed situation which occurs very infrequently in human affairs. Moreover, an organisation chart is necessarily a flat thing; it does not show the picture that really matters—the moving picture of work in progress.

The inquirer who wishes to understand not merely the general scope of British preparations for war, but also their *tempo* and practical results, will find very frequently that his inquiries must start with the Chiefs of Staff Sub-Committee. It was set up in 1923, following the report¹ of a specially appointed sub-committee under the chairmanship of Lord Salisbury. The problem of inter-Service co-ordination, more intricate now owing to the emergence of the R.A.F., had led to renewed demands for a Minister of Defence with supreme control over all three Services. These demands the Salisbury committee did not endorse; but it made two important recommendations: first that a minister should be appointed to act as the Prime Minister's deputy on the Committee of Imperial Defence, to give that continuous direction to its business which the Prime Minister himself was not always able to give: secondly, that the Chiefs of Staff of the three Services, while still continuing to fulfil their existing responsibilities as advisers on sea, land and air policy respectively, should be vested with 'an individual and collective responsibility for advising on defence as a whole, the three constituting, as it were, a Super-Chief of a War Staff in Commission'. The first of these recommendations was not implemented until 1936; but the second was put into effect immediately. From 1923 until 1939 the Chiefs of Staff Sub-Committee, together with the organisation built up under its oversight, was a permanent part of the Committee of Imperial Defence: in 1939 it was absorbed, with the rest of the Committee's mechanism, into the organisation of the War Cabinet.

Recommendations of the Chiefs of Staff Sub-Committee were inevitably the starting point of investigations and recommendations in other widely dispersed sectors of defence preparation: for example, the advice that the Chiefs of Staff tendered about the size of the armed forces was fundamental data both for the Manpower Sub-Committee, which was concerned with military recruitment and industrial labour, and the Principal Supply Officers' Sub-Committee, which was concerned with the problems of industrial capacity and materials. In general, all the teams of experts working within the

¹ Cmd. 2029 of 1924.

framework of the Committee, if they were to bring their planning into sharp and realistic focus, needed clear guidance about the size and character of the war that might be anticipated: failing such guidance, they might be able to produce valuable essays of a general character; but they could not possibly reach exact conclusions about problems of time, place, and quantity—such as the claims of war production upon materials, plant and labour, or the tasks that would be laid upon the nation's shipping and ports, or the civilian evacuation of cities.

This advice the Chiefs of Staff were at first quite unable to give. They could not produce any realistic appreciations of the war that was to be expected and prepared for, because the Cabinet had laid it down that for ten years to come no war—or at least no 'great' war—need be expected and prepared for. Instead of a firm strategic hypothesis for the guidance of the war planners in all sectors, there was this so-called 'ten-year rule'. It had been first adopted by the War Cabinet on 15th August 1919; in 1928 it was reaffirmed or reinterpreted by a decision to advance the base date from year to year. Thus, failing an explicit rejection of the original assumption in (say) 1932, the ten-year period during which no great war need be expected would stretch to 1942.

It was, in fact, not until 1932 that the ten-year rule was rescinded by a formal decision of the Cabinet. Even then, a considerable time elapsed before the strategic hypothesis of German, Japanese, and possibly Italian aggression was definitely accepted as the basis for all defence studies and plans.¹ That act of acceptance still left many things undecided and obscure (necessarily so, for only the powers planning the attack could forecast its weight and direction, and fix its zero hour); but it did at least open a new period of urgency and definiteness in British preparations for war.

The historian of British war economy may perhaps identify the year 1935 as a watershed separating two contrasted historical landscapes: on one side of this watershed lies a tranquil country in which people move about without hurry, on the other side lies the rough and dangerous land of haste and struggle. From 1919 almost until the mid-nineteen thirties, the work of the Committee of Imperial Defence had been a kind of leisurely essay-writing on the kind of action that would have to be taken in the event of a 'great war': in this period, it was the formulation, by Treasury initiative, of policies to combat war inflation that most attracts the historian's attention. After 1935, the initiative passed to the men who were attempting, very often under great pressure, to build up the war sector of British industry: in this period, planning increasingly meant decisions

¹ See pp. 63, 64 below.

quantitatively expressed. Between the two periods there exists, of course, no absolute contrast of activities; for example, the preparations against inflation did not by any means come to a dead stop in 1935. Nevertheless, the chronological division, if not too strictly drawn, is for the historian the most significant one. Each period will therefore be reviewed in turn.

(ii)

The First Phase: Concept of a Great War

So long as the 'ten-year rule' remained in force, those economic planners whose business it was to think in quantitative terms appealed in vain to the military experts to define the basis of their planning. Some questions that the Principal Supply Officers framed in 1928 reveal an almost comical uncertainty about the kind of war they were expected to plan for. Would the terrain be mountainous or level, well-watered or waterless? Would there be railways and roads? Would the climate be hot or cold? The Committee of Imperial Defence could not answer these simple questions. The best it could offer was a vague alternative hypothesis: some wars were little, others were 'great' or 'major' wars. The phrases recurred in various documents; but there was at first no uniformity in their definition. At one time it was suggested that a war in which more than three-quarters of a million men were called to arms might be reckoned a major war. At another time a great war was defined as one in which the whole resources of the nation would be engaged. In the end, it was this second definition that stuck.

The concept of a great war had important implications for the organisation of government. The Committee of Imperial Defence did not forget those two and a half years of indecisive experiment that had elapsed between August 1914 and the constructive reorganisation of December 1916. It enumerated the four possible variants of supreme control in time of war: first, the ordinary peace-time system of Cabinet government; secondly, Cabinet government with a War Committee of very limited powers; thirdly, Cabinet government with a strong War Committee; fourthly, a real War Cabinet. The first expedient would be unsatisfactory even for a minor war; for a war of the largest size, only the last solution would be adequate. Steps were therefore taken to ensure that all the relevant papers would be assembled and put before the Prime Minister of the day immediately on the initiation of the 'precautionary stage' before the outbreak of war; in the light of the facts before him, he would then establish the appropriate instrument of supreme control.

It was no less necessary to think out the economic implications of a great war. But who was to initiate the thinking? On the organisation chart of the Committee of Imperial Defence there seemed to be provision enough for the study of bits and pieces of the economic problem; but there was no visible provision for the study of economic policy as a whole. In 1930 the Government set up a new 'Prime Minister's Committee', the Economic Advisory Council. It never came properly to life except through the activities of its two main sub-committees, the one for economic information, the other for scientific research. The first of these bodies was presided over by Sir Josiah (later Lord) Stamp. In the summer of 1939 he and two colleagues were given an important commission to survey the economic and financial plans for war and to point out the main gaps. This 'Stamp Survey' got through a great deal of work on the eve of the war and in its early months. Up to that time, however, the problems of defence economy had not come within the orbit of the Economic Advisory Council.¹ They remained the Committee's business. Whether or not the Committee would make any sustained attempt to envisage them as a whole depended in practice upon the initiative of the Treasury, the department that was charged with the duty of measuring all the activities of government by the common standard of finance.

Finance, however, had long since ceased to be sufficient as the measure and motive power of economic mobilisation in war; what had been adequate in the days of Mr. Pitt had been proved inadequate in those of Mr. Lloyd George; twentieth century governments were under a strong compulsion to measure their war needs in terms of real resources, and to take direct action for mobilising these resources. A memorandum of 1929 on *The Course of Prices in a Great War*, gave proof that this lesson had been pondered in the Treasury. The memorandum, which was intended in the first instance for the Manpower Sub-Committee, became the starting point of investigations at some of the chief focal points of economic planning. It threw open a window upon the wide, if still misty landscape of war economy.

At the very outset, the memorandum put the war-time price problem in the wide context that had been outlined so well by Patrick Colquhoun and the political arithmeticians, not merely in the narrower context of monetary theory that had dominated economic discussion for a hundred years after Ricardo's propaganda and the report of the Bullion Committee. It reviewed the processes whereby war expenditure generates greatly expanded monetary incomes at the very time when the switch-over of capital and labour to war

¹ Moreover, Lord Stamp's Survey of financial and economic plans did not officially involve the mechanism of the Council: the appointments were personal.

production restricts the replenishment of consumer stocks. It surveyed the measures that the Government might take to mitigate the pressure of increased purchasing power upon a decreasing supply of goods. Its concluding summary of these measures is worth quoting in full:

The real conclusion is that the problem of banking and general financial policy in time of war and the problem of controlling profits and the price of labour (including remuneration for personal services of all kinds) must be dealt with together. The limitation of wages is probably more important than the limitation of profits, since all other methods failing taxation can be applied more easily to correct inflated profits than to correct inflated wage payments. The problem is to reduce the volume of money in circulation so as to correspond to a decreased supply of commodities at the same time as we increase the amount of employment and services called for from the Nation. The programme must include fixation of wages and prices so as to reduce to the smallest possible dimensions the demand for additional credit; it must include a strict control of imports and rationing of consumable goods so as to reduce possible objects of expenditure, and lastly, it must seek to bridge the gap that yet remains between the national revenue *plus* national savings and the war expenditure by increasing taxation and borrowing additional funds without the artificial creation of credit.

This paragraph contains both a modern doctrine of war finance and far-reaching proposals for economic control—drastic taxation, a borrowing policy purged so far as possible from all inflationary expedients, control of prices, control of profits, control of wages, control of imports, consumer rationing—items that when added up together amount to a pretty comprehensive instalment of war economy. Permeating the whole document is a fundamental assumption about method: supply-and-demand prices cannot be trusted in time of war to perform their customary function of allocating productive resources, determining production priorities, and distributing the final products amongst purchasers. All these processes must be governed by explicit government decision and administrative direction, inspired always by one firm purpose: the maximum concentration of the nation's dispersed economic resources in the zone of effective war-making power. Nevertheless, the Government, like any private purchaser, will still find itself compelled to pay a price for the materials it demands and the labour it hires; it will find itself no less compelled to make money payments to the nation's conscripted soldiers and to their families. In this way, every section of the war effort will be given a money value, and the Government will be compelled to shoulder a heavy responsibility for maintaining the value of the money unit. The Treasury's memorandum is permeated by a deep conviction, well grounded upon the experience of many belligerent nations during the previous war, that excessive inflation of the money unit would open the way to great calamities.

Not merely would it widen the budgetary gap and aggravate the problems of government accountancy, but it would throw into confusion the social accounting of all households and classes of the nation; it would generate economic waste, and social injustice of the most embittering kind; it would hinder and distract the orderly mobilisation of the nation's power in war, and after the war would heap upon the nation a heavy burden of suffering and discord.

In the sphere of financial policy, it was the Treasury's own responsibility to plan the appropriate precautions—a programme of taxation without any misjudged mercy in it, and a programme of borrowing to bring in the genuine savings of the people. There was another sphere, that of external payments, in which the Treasury's initiative would be decisively important. The memorandum of 1929 gave a great deal of attention to the external balance; but this is a problem that is best postponed to a later chapter,¹ for it has aspects far more extensive than British price policy, and was besides placed in a new context by changes that occurred, after 1929, both in the United Kingdom and in the United States. To avoid over-crowding the present chapter, attention will be concentrated upon the plans for domestic economic control to which the Treasury memorandum gave the impetus. The memorandum was in effect an invitation to the Committee of Imperial Defence to initiate wide-ranging studies of economic policy. The ramifications of these studies, the recommendations arising out of them, and the decisions arising out of the recommendations are not at all easy to follow in their criss-crossing from one sub-committee to another and their occasional return to the main Committee and to the Cabinet. It is possible that ministers and officials sometimes got lost amidst the dispersed multiplicity of details. The historian shares their difficulty; but he must do his best to pick up and follow the main threads.

After some years of leisurely discussion, a new sub-committee was appointed in 1932 to decide how far price control, import control and rationing should be imposed at the beginning of war or in its later stages and to designate the departments amongst which the various controls would be distributed. It is to be emphasised that at this time a strict control over wages was an assumption that all official bodies shared. They did not of course all approach the problem from the same angle: to the Treasury, wage control appeared necessary if price increases were to be kept in check; to the Ministry of Labour and the Manpower Sub-Committee, price control appeared the preliminary and essential condition of an effective control over wages. There were these differences of emphasis; but nobody doubted at that time that price control and wage control were interdependent, and that

¹ See below, Chapter IV, Section ii.

both must be placed side by side at the foundation of economic policy. (And yet, later in the nineteen thirties, the foundation stone of wage control slipped quietly away.)

If there were to be control of prices and wages, there must also be control of profits. This was necessary for political no less than financial reasons: Labour would never accept stabilisation of wage rates unless workers' cost of living and employers' profits were stabilised at the same time. Especially in the expanding war industries the control would need to be firm. These general propositions were universally accepted; but it was hard to give them firm substance so long as planning was for an undefined 'great war', not for a specific war that would demand a specific expansion of the munitions industries. Until the phase of rearmament was considerably advanced, there was not even agreement about the administrative arrangements to be made for managing the munitions industries.¹ For the present, therefore, plans for the control of profits (as distinct from their taxation) were limited to the co-ordination of contracts and a general declaration of faith in the procedures of cost accountancy and price fixing.

In the field of civilian consumption, to which the Treasury memorandum of 1929 had assigned such outstanding importance, rather more precision was possible. The basic data contained in the population census would not be altered by the onset of war; the basic physical needs of the population were known—better known than they had been during the First World War, when scientific nutritional studies were as yet in their infancy. To the sub-committee appointed in 1932, 'fair shares' in the diminishing supply of consumption goods that would be available to the civilian population was a consideration no less important than precautions against inflation and insistence upon efficiency in the processes of production and distribution. The sub-committee found a starting point in the cost-of-living index number compiled each month by the Ministry of Labour. The weights of the index, which added up to the total of twelve and a half, were as follows:

Food	. . .	7½
Rent and Rates	. . .	2
Clothing	. . .	1½
Fuel and Light	. . .	1
Other items included	. . .	½
		<u>12½</u>

¹ In 1920 it had been decided to hand back to the Service departments the functions which the Ministry of Munitions had performed. The only institutional mitigations of departmental separatism in munitions supply were (1) the Contracts Co-ordinating Committee, established in 1922, and (2) the Principal Supply Officers' Committee, established in 1924. For the discussions about creating a Ministry of Supply, see below, pp. 57, 58, 67.

In two successive reports, the sub-committee made suggestions for policy and administration over the whole range of the index. The suggestions had to be studied by many departments. Rent and rates were of special interest to the Ministries of Labour and Health. Fuel and light were of concern to the Mines and Petroleum Departments of the Board of Trade, the Electricity Commissioners, and the Ministry of Transport. Clothing and boots and 'other items' belonged chiefly, though not exclusively, to the Board of Trade. In the event of war, administration of the appropriate controls would be parcelled out amongst these various departments, and others which would in due course be set up.

When all the specialist and departmental investigations had been completed, there remained a few gaps in the planned network of control. There was a disposition to leave uncontrolled the prices of all unessential goods, allowing restricted allocations of raw material and price rises to bring about equilibrium at a reduced level of purchases. More important: no scheme had been accepted for the rationing and supply of clothing, which was a significant item in the cost-of-living index. But rent control had been agreed upon, and so had a rationing scheme for fuel. Moreover, preparations for food control had been carried a long distance.

Food was reckoned at that time¹ as three-fifths of working-class expenditure and occupied a central position, both from the statistical and psychological points of view, in any effective policy of price and wage stabilisation. 'If the problem of food can be met', declared the sub-committee of 1932, 'the objects set out in our reference are in a fair way to attainment'. To tackle the problem, the Government must be ready, at the first menace of scarcity affecting any of the staple foods, to impose a firm control containing some of the following restrictions, and if necessary all of them:

- (a) prohibition and licensing of (private) imports;
- (b) purchase of supplies whether imported or home-produced;
- (c) control of ancillary factories, e.g. flour-mills, sugar-refineries;
- (d) control or requisition of visible stocks;
- (e) control of prices, including, if necessary, the fixing of the margin of profit at each stage of production and distribution;
- (f) regulation of distribution;
- (g) rationing of consumers.'

Such far-reaching plans could only be made effective in time of war if close contact were established in advance of war between the Government and the more important trade organisations engaged in

¹ The Ministry of Labour inquiry into working-class budgets in 1938 showed this estimate to be out of date: two-fifths rather than three-fifths had come to represent the true proportion.

importing, producing and distributing foodstuffs. There still survived one relic of the first Ministry of Food, namely, the Board of Trade Food Emergency Organisation;¹ but to prepare the way for a second Ministry of Food, which would be ready at the very beginning of a new war to exercise comprehensive and firm control, it was necessary to establish a new organisation. This was done in 1936 by setting up within the Board of Trade the Food (Defence Plans) Department, a small but competent body which was staffed predominantly by officials with experience of food control in the First World War.

The immediate impulse towards this decision came most notably from Sir William Beveridge who had been called in to serve as Chairman of a group of officials advising on the technical problem of food rationing. He went beyond this limited problem and laid down the following four essentials of effective food control:

- '(1) A decision to appoint a Food Controller with full powers as from the first day of war.
- (2) A feeding policy, thought out in advance, for adequate total supply in the country at all stages of possibly protracted war.
- (3) A control plan, prepared in advance, in regard to each essential food . . .
- (4) Outbreak plans to meet a likely air attack.'

The last three heads of this comprehensive programme contained an immense administrative task—a task far too big for the small staff appointed in 1936. At the time of the Munich crisis, not one of the stipulated needs had been as yet provided for. But when war broke out twelve months later, preparations under all heads except the second were well in hand. The Food Controller was ready to take over; commodity controls were ready and ration books printed; plans were prepared to meet the expected air attack. The 'feeding policy', however, had not been thought out beforehand. It was to emerge gradually, even reluctantly, under the pressure of events.

The narrative that started with the Treasury's memorandum of 1929 on *The Course of Prices in a Great War* has been permitted to cross the 'watershed' of 1935 into the territory of rearmament, and has ended by emphasising the maturity of preparations in the sector of food control. Upon the evidence so far submitted, the reader might be tempted to conclude that the men responsible for British preparedness had learnt 'the lessons of history' so well that they were

¹ The Board of Trade Emergency Organisation was supported by the Emergency Powers Act of 1920; though when the organisation was tested during the General Strike of 1926, it did not need to invoke these special powers. The Food (Defence Plans) Department arose from the deliberations of the Committee of Imperial Defence's 1936 sub-committee on Food Supply in Time of War. This sub-committee, like its 1932 predecessor, called in Sir William Beveridge as adviser. The agitation about food storage was largely responsible for these activities.

ready to start fighting the new war at the point where they had stopped fighting the old one. This, however, would be a question-begging statement; its implications might perhaps be flattering in the sector of food policy, but in other sectors they would be the very reverse. The Committee of Imperial Defence would have laid itself open to censure and mockery if it had sought to apply the lessons of history in so mechanical a way. The mistake of 'preparing for the last war' is a common one, whose roots are to be found, not in the use of historical knowledge, but in its misuse. A true understanding of historical experience will show itself, not in a habit of memorising and repeating (or avoiding) past behaviour, but in a forward-looking quality of mind—the kind of mind that recognises the problems it ought to look for. No doubt the experience of 1914–18 revealed, to those who in retrospect studied its meaning, the general type and pattern of a war economy under twentieth-century conditions; but it could not reveal the actual weight and proportions and particularity of the war economy that Great Britain would be called upon to fashion twenty-one years after 1918. Those twenty-one years were a time of rapid change; they produced some entirely new data, both in the industrial and in the strategical field.

In the industrial field there was, for example, the rapid growth of trade associations in wide areas of British industry—a phenomenon that was bound to modify the terms of partnership worked out haphazardly between Government and industry during the First World War. The Government was also compelled to reckon with the changed conditions of some basic industries. Coal is a good example. In 1914 the industry was still expanding rapidly, but in 1939 it had behind it many years of painful contraction; in 1914 its structure was intensely competitive, but in 1939 it had a cartel and governing body of its own; in both years it had behind it a tradition of fierce disputes between capital and labour, but between the two wars it had become 'politics' in an altogether new way, and one peculiar to itself. In these changed circumstances, there would have been no sound reason for assuming that those same controls that had been imposed in the later phases of the First World War ought to be reimposed in the opening phases of the Second.¹

In the strategical field, change was even more rapid, and an excessive deference to past experience would have been even more dangerous. Since 1919, the sensational advent of massive air power

¹ Between 1917 and 1921 the Government had assumed complete responsibility for the industry's finances, but no detailed control of its operations. In 1942 the Government followed a different policy: it took control over coal-mining operations, but left financial responsibility with the collieries. At the outset of war in 1939 the Government had taken control neither of the industry's finances nor of its operations. Here, then, were three distinct policies—and each of them in its own time was widely proclaimed to be a failure. Under each system there was a yearly fall in the total output of coal and in output per man-shift.

and the mechanisation of land forces had loosened that constipation of war in which the armies of the western front had been bound after the battle of the Marne; but before 1940 there was no sure knowledge of this fact, nor of its consequences. Knowledge of the changed and changing mechanics of the fighting services did indeed make possible some realistic estimates of the new qualitative demands upon the munitions industries. These qualitative changes had important quantitative implications; but the aggregate of quantities could not be envisaged, even vaguely, until the period of rearmament was far advanced. In consequence, the planners in the civilian sector of war economy were also condemned—despite the far greater continuity in the data they had to handle—to a corresponding vagueness about quantities. For the scarcities they had to foresee were of a derivative kind. Their extent, and in consequence the rigour of the policies designed to cope with them, would be determined by two basic conditions: first, constriction of the nation's capacity to import overseas supplies, secondly, expansion of its armed forces and of the industries employed in equipping them.

To what extent would the nation's customary imports of food and raw materials be curtailed by war-created stringencies of the means of payment or the means of transport? To what extent would the demands of the Services and war industry siphon away the manpower, materials and other productive resources that in peace time were employed, directly or indirectly, in satisfying consumer needs? Until the answers to these questions could be forecast with some show of quantitative precision, it would be vain even to guess at the probable dimensions of the gap that might be expected between the nation's expanding monetary income and its contracting supplies of purchasable goods and services. And in each specific blue-print of control, blank spaces would have for the time being to be left: for example, though rationing was accepted in principle and its mechanisms prepared, the specific commodities to be rationed could not always be identified nor could the size of the ration be fixed.

Forecasts were made of the resources of foreign exchange and of shipping that would be available for procuring imports. These forecasts were destined to exercise an extremely important influence upon British economic policy in the first phase of the war. An account of them will be given in Chapter IV.

The suction of resources into the 'war sector' of the British economy began some years before the war broke out. With the progress of rearmament, war-planning merged into war-programming—a thing of present decision and quantitative definition. The following section of the present chapter will describe this transition.

The present section will conclude by sketching the outlines of manpower preparations over the whole period between the wars. Here

it would be inappropriate to break up the narrative too much either by a logical or a chronological division. The Manpower Sub-Committee of the Committee of Imperial Defence had to make its contribution of thought both to the anti-inflationary policies that preoccupied the Treasury and to the mobilisation plans of the Services and their production departments. Under both heads, there was considerable continuity between the two main chronological periods of planning. Such changes of plan as occurred in the second period were not always of the kind that might at first sight have been expected.

The Treasury memorandum of 1929, as has been seen, discussed the effects of labour shortage as a constituent of the inflation problem. Failing control, scarce labour would mean higher payments for labour and in consequence higher prices in the shops: conversely, higher prices in the shops—for the necessities of life¹ at any rate—would create an irresistible pressure for wage increases. The Treasury maintained, and everybody at that time agreed, that wage control and price control must go together. Yet in the late nineteen-thirties wage control was thrown overboard almost casually. There is no record of any formal discussion on the subject by the Committee of Imperial Defence, which would seem to have consented by silence to a conclusion of the Manpower Sub-Committee: that the price of labour must be settled by voluntary agreement within industry, although prices in general, and profits also, must be brought under effective and visible control. How came it that a change of such great theoretical and practical importance was brought about so unobtrusively? The new rigours of life in the rugged country 'across the watershed' may have had something to do with it; the Government was now striving to expand at high speed the industries engaged on rearmament and felt itself compelled to tolerate high wages as a means of building up their labour force. Moreover, in the days of leisurely essay-writing, the co-ordination of theories had been not too difficult a task; but it was not by any means so easy to co-ordinate the actual policies that overworked staffs were shaping under the pressure of rearmament and the imminent threat of war. In 1937 and again in 1938 the Committee of Imperial Defence showed itself aware that the aggregate of specialist departmental preparations no longer reflected the principles and proportions of a comprehensive price policy. In the hope of setting things right, it appointed a new sub-committee to go into the whole question once

¹ The writers have come across only one tentative official suggestion, before the war, pointing towards cost-of-living stabilisation through subsidies. At an interdepartmental meeting of 8th September 1938, the Treasury representative observed that subsidies to steady the wholesale prices of essential goods would increase expenditure and therefore probably inflation; but the sacrifice might be worth while in order to get Labour to accept the principle that both retail prices *and wages* should be stabilised.

again. When war broke out, this sub-committee had not yet sent in any report.

The increasing pressure of war preparations was not however the main cause of the growing raggedness of price policy. In particular, it did not bring about the change of attitude towards wage control. The main reason for this change lay altogether outside the circle of economic theory and its applications to the anti-inflation policy. The Manpower Sub-Committee had to consider not only economic, but also psychological and political data. Economics and psychology—if one may be permitted to personify these abstractions—were at war with each other. According to the former, the relevant factors in the wage problem had been assembled in the Treasury memorandum of 1929: according to the latter, the main elements in the problem were the workers' organisations, the working men and women of the nation, and what they would or would not stand for. Memories of the last war and estimates of the trend of their feelings during the nineteen-thirties made it seem highly unlikely that they would stand for surrendering their peace-time right of bargaining for higher wages. As the nineteen-thirties wore on, the Ministry of Labour argued with a growing insistence that wage control was unthinkable, that reliance must be placed instead upon the realism and moderation of organised Labour and upon the processes of persuasion and conciliation, operating through the joint industrial machinery that ever since the previous war had been linking employers' and workers' organisations ever more closely.

Wage problems, important though they were, were only a part of manpower policy. The Manpower Sub-Committee had to make plans for performing the most challenging of all the tasks that would be laid upon Government and people in a great war—the mobilisation of the fighting strength and the working strength of the men and women of Great Britain. Success or failure would be determined in the end not only by economic and administrative arrangements but by the deepest currents of national feeling. The first systematic survey of the dimensions of the task was made when the costly errors of the early years of the previous war were still vividly remembered. It was, for example, remembered that unrestricted voluntary enlistment had taken away from the engineering industry in the first twelve months of war nearly one-fifth of its total labour force, and from the chemical and explosive industries nearly one-quarter—follies that were repeated in reverse during the following twelve months when the armed forces were starved of men, partly through failure of the voluntary principle, partly through the successful private wars initiated by the Service departments, and thereafter continued by the Ministry of Munitions, in defence of their separate labour forces. The worst of this confusion had subsequently

been cleared up, very slowly and laboriously, by three acts of policy and their detailed application: first, military conscription; secondly, the standardised Schedule of Protected Occupations; thirdly, the vesting of administration in a Ministry of National Service strong enough to hold the balance between the rival claims of the armed forces and industry.

This survey of experience was produced in 1922, and the Cabinet subsequently accepted the main principles embodied in it. In the event of another great war there would be universal liability to military service, a Schedule of Protected Occupations, and a Ministry of National Service. From 1922 onwards, the principle of military conscription was not questioned, except during the short period—to be explained later—when the concept of ‘a war of limited liability’ was in the ascendant. Even then, the questioning was not very forcible, and in the end the principle of conscription was made effective in advance of actual war by the Military Training Act of May 1939.

In contrast, the problem of establishing a Ministry of National Service caused protracted and hesitant discussions. They were mixed up with the parallel problem of the proposed Ministry of Supply, and the allocation of responsibility for handling industrial labour—a responsibility everybody at that time seemed anxious to pass on. One plan succeeded another, but the common tendency of all the plans up to the very eve of war was to divide responsibility. Usually, the conception was rather as follows. The Ministry of Labour—seemingly the most natural, but for the time being a reluctant candidate for the special war-time powers—would confine itself fairly strictly to its peace-time functions.¹ A separate Ministry of National Service would therefore be created to control recruitment and hold the balance between the armed forces and industry. A new Ministry of Supply would handle the dilution of labour and the other labour problems of war industry. However, these allocations of function had to remain extremely tentative until it was known for certain whether there would really be a Ministry of Supply, and if so, what its capacities would be. Under the aegis of the Principal Supply Officers’ Sub-Committee there were two widely ramifying organisations, the one for industrial capacity, the other for materials. Some people thought that these two organisations should be established in two separate ministries. Others thought that they should be combined in a single Ministry of Supply. Even so, there was a parallel question calling for an answer: whether the Ministry of Supply should act as supplier to all three Services; or whether the

¹ Within the Ministry of Labour there was a division of opinion, with the negative view against the assumption of war-time powers, upheld by the Industrial Relations Department, temporarily in the ascendant.

Admiralty, and perhaps the Air Ministry should be permitted to retain control of design and production within their own separate spheres? It was not until after the German occupation of Prague and the ensuing decision in favour of a great expansion of the Army that these uncertainties were finally cleared up. On 1st August 1939, a bare five weeks in advance of war, the Ministry of Supply came into existence with two main functions: first, to supply finished munitions for the land forces only; secondly, to control the great majority of the materials (not quite all) that would be required by all three Services and the civilian population. During the same August, the Cabinet took the decision that led a month later to the institution of the Ministry of Labour and National Service. The Ministry of Labour had been made responsible, after the Munich crisis, for drawing up the National Service Handbook and administering the recruiting campaign; after the Military Training Act of May 1939 it found itself faced with the task of calling up the first conscripts. By this time it had overcome its earlier hesitations and was growing willingly into its war-time greatness as Ministry of Labour and National Service—though not as yet to the full measure of that greatness.¹

It was the Schedule of Reserved Occupations, a cardinal item in the manpower policy adopted in 1922, that was given throughout the inter-war period the most continuous and constructive attention. The Schedule was worked out in detail on the basis of two main principles: first, it listed occupations or trades, not industries; secondly, it granted to no occupation an absolute exemption from the operation of military conscription, but varied deferments of military call-up in accordance with the war-time importance of each particular trade. This variation was achieved by working out different combinations of two criteria, age and medical category. From 1922 until 1937 the task was very much simplified by the principle of the 'clean cut', which excluded from deferment of military service every man under twenty-five years of age and in medical grade one, no matter what his occupation might be. After 1937, the requirements of the munitions industries for skilled men were pushed up by the decision to create a better-equipped Army, at the very time when these industries, owing to their reduced intake of apprentices during the depression years and their correspondingly heavy replenishment in the years of recovery, were abnormally dependent upon skilled workers in the 18–25 age group. So the 'clean cut' had to be sacrificed, and a revised Schedule prepared. The revision was ready a year before the outbreak of war. Moreover, during the last twelve months of peace, a variant of the Schedule was published and used to control

¹ For the willing assumption of additional responsibilities by the new Minister of Labour and National Service in May 1940 see below, chapter XI.

the successful campaign of voluntary enlistment which was then filling the gaps in the approved strength of the armed forces.

The Schedule of Reserved Occupations embodied, with comprehensiveness and detailed precision, much still-relevant experience gained between 1914 and 1918. Combined with military conscription, it gave reliable assurance that the needs of the armed forces would be satisfied without draining away the skilled workers essential to industry. It did not, however, give any assurance that industry would make the best use of these reserved workers. Reservation was by occupations, and occupations could be pursued in places very remote from the war effort; electricians, for example, might choose to remain in comfortable peace-time jobs even when the Admiralty dockyards were desperately short of skilled men to install modern electrical gunnery controls in the nation's fighting ships. Getting the workers into the right place at the right time and keeping them there so long as they were needed was a problem that the Government had not mastered during the previous war. It had not dared to propose industrial conscription. It had even been compelled to whittle away some of the negative controls—the system of leaving certificates, for example—that mitigated the evils of an excessive labour turnover. Although the workers had accepted dilution of labour, limitations of their right to strike, and other restrictions upon their ordinary rights and customs, they had by and large stood out for their basic peace-time freedoms of movement and wage bargaining. Their version of 'business as usual', no less than the employers' version, had impeded the mobilisation of war-making power and cost the nation dear in suffering and death. In 1922 the memories of this frustration and loss were still vivid; the manpower experts who reported in that year were convinced that they must not be permitted to recur in any great war of the future. To forestall their recurrence, the Government should arm itself with powers to 'control and transfer civilian labour according to national needs'.

The same advice was repeated in subsequent documents of the Committee of Imperial Defence; but no resolute steps were taken to translate it into a policy and plan of action. Had the attempt been made, it would have collided with other vivid memories—not, this time, of the losses that the nation had sustained because control over labour had been in economic terms too feeble, but of the losses it had sustained because the control had been in psychological terms too oppressive. Indeed, it seemed as if economics and psychology were so much in conflict with each other that they could remain on speaking terms only so long as the former remained content to express its wisdom in general propositions. This perhaps may partly explain a paradox in the history of preparations for managing industrial labour: as the Second World War grew more imminent, so did the proposals for labour control grow more attenuated.

It may be helpful to review quickly how these proposals stood in September 1939. There are three main headings to be considered: labour supply, labour productivity, labour earnings. The last has been already discussed in outline; the Government's decision not to impose control left over for future solution problems that would in due course become insistent. Under the head of labour supply, there were a number of separate problems to be attacked. There would have to be a great increase of the total population of fighters and workers by absorption of the unemployed and by bringing in new recruits from the 'unoccupied' or, as it was later called, the 'non-industrial' population; but in September 1939 no systematic attempt had as yet been made to measure the dimensions of this increase, or to construct a budget of requirements and supply either in long term or in short term. There would have to be large transfers of skilled and unskilled workers from less essential to more essential industry, a proper distribution of skilled workers amongst the essential war jobs, and restraints upon excessive labour turnover. In these matters the plans of September 1939 fell short even of the limited negative controls adopted during the previous war; in particular, they did not include the much-hated system of leaving certificates. Their chief feature was the draft of a Control of Employment Bill, empowering the Ministry of Labour and National Service to control advertisements for labour and to prohibit engagements except through the labour exchanges or through the recognised placing arrangements of trade unions. For the positive direction of labour to essential work there were no proposals at all. Nor were there as yet many definite proposals for bringing about an increase of labour productivity. That also was a problem made up of many particulars, some highly dependent, others less dependent on official action: increase of working hours with due safeguards for the health of workers and their will to work; dilution and similar economies in the use of skilled labour; training; cancellation of restrictive practices; enforcement of factory discipline; prevention of lost time through strikes and lock-outs—the list could no doubt be enlarged. A quick scrutiny of it shows once again that the Government's preparations in September 1939 fell short of what had been done in the previous war. For example, the Ministry of Labour had made no plans for the enforcement of industrial discipline by statutory means. It had turned down proposals for the prohibition of strikes and lock-outs, and in consequence was not proposing to introduce a system of compulsory arbitration.

If this attitude of caution is to be understood, various considerations must be borne in mind. There was, to begin with, the long delay in settling problems of jurisdiction. The Ministry of Supply did not come into existence until 1st August 1939; the Ministry of Labour and

National Service was not constituted until two days before the outbreak of war: there was not, nor could there be as yet, any finality in the division of responsibility between these two authorities. The Ministry of Labour had for long contended that its own functions should be broadly limited to the sphere of industrial relations. Industrial discipline within the factories and the manifold problems of the dilution and substitution of labour ought to be handled by the production departments. And when the Ministry was challenged to produce its plans for shifting labour into the centres of war industry, it contended that the solution of this problem also lay chiefly in the hands of the production departments, which could, at any rate, immensely reduce the dimensions of the problem if only they had the wit to site their new factories in areas of abundant potential supplies of labour: when war work could be brought to labour, surely it was foolish to make plans for pulling labour up by the roots and shifting it to war work.

In this contention there was some force; but intermingled with it was an economic philosophy whose insufficiency had been proved in the previous war. The Ministry of Labour was clinging to the old faith in wage inducement and the other economic incentives as sufficient means of bringing about a satisfactory distribution of labour at a satisfactory speed. Just before the war, a representative of the Ministry told the Stamp Survey that 'individualism' would do the job. Lord Stamp and his colleagues thereupon concluded that they had found one of those gaps in the economic and financial plans for war which they had been instructed to search out and bring to the attention of the Government. They thought the time had come for 'far-reaching changes in the relations between government and labour'; they pleaded for 'a positive and dynamic policy, directed at securing the most effective and economic use of the limited labour supply of the country'.

They did not however define the content of this dynamic policy, nor the conditions under which it could be made acceptable to organised Labour. Winning Labour's consent was an essential part of the problem. The Ministry of Labour might be excessively reluctant to exercise direct administrative control; but it was placing great hopes in the operation of self-control and patriotic leadership in the trade unions. Although it had made no plans for government action to enforce the dilution of labour, it believed that the same end would be in fact achieved by joint agreement of the partners in industry. It could point in justification of its trust to the Relaxation of Customs Agreement concluded during the summer of 1939 between the Amalgamated Engineering Union and the Engineering and Allied Employers' National Federation. Moreover, it had prepared plans for establishing immediately on the outbreak of war a National Joint

Advisory Council in which representatives of the employers, the unions and the Government would face together all the main problems of labour as they arose, and agree with each other on the appropriate solutions.

To prepare plans for war is to prepare moulds into which the fluid strength of the nation may be poured when the time of danger comes. The mould that had been prepared for the nation's manpower was proved in the event to be inadequate: following the crisis of 1940, a stronger and more capacious mould had to be made. Industrial conscription was imposed and accepted then. Would it have been practical policy to impose it before the nation's danger was immediate and extreme? Even after September 1939, it was generally agreed in public discussion that British people 'go better led than driven'. And those departmental officials who understood the strong economic arguments in favour of industrial conscription had long since concluded that the psychological and political barriers were insuperable. It is for the historian of public opinion to explore the reasons for this conclusion: right or wrong, its economic effects were great. There could be no adequate manpower policy, declared a document of 1936, without 'a general recognition of the issue before the country, popular support of the Government, and a Government strong enough and decisive enough to make use of this popular support'. The same words might have been used to define the nation's basic need in every sector of the war effort.

(iii)

The Second Phase: Rearmament

By following one or two tracks rather further than was at first proposed, this narrative has already passed the milestone of 1935 and made reconnaissances in the territory of rearmament; but it must now return to 1932 in order to enter that territory by the main strategical highway, from which alone the general configuration of significant landmarks can be adequately observed. It was in 1932 that that the 'ten-year rule' was formally rescinded by the Cabinet. Before then, the rule had more than once been criticised. The Foreign Office in 1931 had ventured the opinion that the 'ten-year rule' had tended of late 'to become a speculation with hope still predominant, but with doubt shadowing the prospect'; the rule ought to be re-examined after the conclusion of the Disarmament Conference the following year. But the Chiefs of Staff refused to wait until then. In each of their annual reports from 1928 onwards they had expressed their growing anxiety

about the 'ten-year rule'; in February 1932 they exploded into a full-throated denunciation of it. They said that it was contrary to the lessons of history and that it had no counterpart in the policy of any foreign country. They said that it had produced terrible deficiencies of all Service requirements, had thrown the British armaments industry into decay, and had produced a state of military ineffectiveness which would make it impossible for the United Kingdom to honour its obligations under the Locarno Treaties and the Covenant of the League of Nations or to fulfil its responsibilities of imperial defence. After this devastating attack, they concluded, mildly enough, by recommending that the rule be cancelled forthwith and an immediate beginning made 'in providing for commitments which are purely defensive'. The Cabinet did not allow itself to be hurried, but it rescinded the 'ten-year rule' and appointed a Defence Requirements Committee with instructions to 'prepare a programme for meeting our worst deficiencies'. This body, in which the Chiefs of Staff were the preponderant element, submitted its first report in 1934. In July of the following year a broader and stronger body, the Defence Policy and Requirements Committee, was set up with ministerial representation and instructions 'to keep the defensive situation as a whole constantly in review so as to ensure that our defensive arrangements and our foreign policy are in line'. The summer of 1935—or perhaps the following winter, when the new committee produced its first comprehensive recommendations—marked the real opening of the rearmament period. What had happened during the previous three years was only an overture. Why had the overture dragged on so long? The Government's decision, or indecision, was among other things influenced by the opinion that the 'financial and economic risks' already besetting the nation were more dangerous than the military risks hanging over its head.

Nevertheless, some progress had been made between 1932 and 1935 towards the formulation of a realistic strategical hypothesis. The task of naming the enemies against whom the nation should prepare its defence was not really a difficult one; the enemies named themselves. It was the Japanese aggressions in Manchuria and Shanghai that had moved the Chiefs of Staff to their final outburst against the ten-year rule. In January 1933 Hitler had achieved power in Germany and begun at once to refurbish Germany's military strength. Hitherto, the Navy in its planning had taken one hypothetical enemy, the Army another, and the Air Force still another; but from 1934 onwards all defence plans were focused upon the Japanese and German dangers. Should not the Italian danger have been included also? In the mid-nineteen-thirties British statesmen and their military advisers were compelled to ask this question; but they asked it with extreme distaste. Their worst

bugbear was 'a three-power enemy'. In 1935 the Defence Requirements Committee declared bluntly that the size of the dangers already threatening from Japan and Germany rendered it impossible for the United Kingdom to make adequate additional provision during the next four years against Italy, the power which lay athwart the main artery of communication between west and east. In the following years, and indeed right up to the summer of 1940, the Chiefs of Staff urged that all possible steps be taken to prevent Italy from joining Germany and Japan in a tripartite attack which the British Empire, even if it were supported by France and possibly other allies, would have the greatest difficulty in beating off. It was, however, not at all easy to convince the Italian Government that a peaceful policy would best serve its interests. In 1937 the Cabinet felt obliged to instruct the Service ministries to include Italy alongside Germany and Japan in the list of possible aggressors, and to plan their defensive preparations accordingly.

Germany and Japan, nevertheless, were rated the two most likely enemies. A very great deal hung on the answer to the question: which of the two was enemy number one? If the answer pointed to Japan, it would carry with it consequences of particular comfort to the Admiralty: emphasis would of necessity be placed on the naval side of rearmament, because, according to the accepted strategical doctrine, a war against Japan would make full demands on British naval resources but would not require the employment of land and air forces on a national scale. If, on the other hand, the answer pointed to Germany, expert opinion would press strongly for the maximum preparation of each fighting service. In 1934, Germany was judged to be the larger danger but Japan the nearer one. The temporary weakness of British defences in the Far East might at any time tempt the Japanese to attack: whereas against Germany—'we have time, but not too much time, to make preparations'. When these words were written, the experts believed that the Germans would not be ready to launch an attack before 1942; but their forecast was soon belied by reported changes in the trend and *tempo* of Germany's war preparations. The 'ultimate potential enemy' might have to be reckoned the 'near enemy' also. In the summer of 1935 the Cabinet, in accordance with the expert advice submitted to it, authorised the Service ministries to work out their defensive preparations with a view to achieving a reasonable state of preparedness by 1939.

It now became a matter of supreme importance to forecast the manner in which the Germans would attack. Believing that British naval power could impose upon the Germans, despite their efforts to insure themselves by substitute production and stock-piling, stringent and steadily increasing economic pressure, the Government and its

expert advisers expected Germany to go all out for a quick victory: Britain therefore must be prepared to resist attack 'on a tremendous scale' in the early days of war. The attack might be delivered by all three arms; its objective might be Britain or France or both together; but the prevailing opinion—popular opinion no less than expert—laid special stress on the danger of direct air attack against British cities and ports. In these circumstances there was a strong temptation to neglect the Army and to concentrate the main effort of rearmament on the naval and air arms, particularly the latter. The Chiefs of Staff endeavoured to repel the temptation; they told the Government that in the future as in the past, war would have to be waged in all three elements, and that each of the three Services would have an essential part to play in the combined military effort of the nation. But it was not until the spring of 1939, after the German occupation of Prague, that this advice began to be embodied effectively in military preparations.

This chapter cannot attempt a detailed description of these preparations in terms of expenditure by the three Services and the corresponding industrial expansions;¹ it can tell no more of the rearmament story than is necessary as a background to general economic policy. To begin with the naval side: until 1936 British naval expansion remained cramped within the restrictions of the Washington disarmament system. When the United Kingdom had accepted these restrictions in 1922, there had existed no potentially dangerous European navy for her to reckon with: when she became free of them in 1936, she had to reckon with two dangerous European navies in addition to the Japanese. In 1922 a 'one-power standard' with America and a 5 : 3 superiority over Japan had seemed a reasonable provision for the safety of the British Empire; but in 1936 the Admiralty felt bound to propose a 'new standard' which would be in effect a three-power standard covering the Japanese, German and Italian dangers. This 'new standard' was defined in a building programme which the Cabinet judged to lie beyond the bounds of financial possibility. Even if the Cabinet had judged otherwise, there would not have been time enough to make the programme effective before the years of the German and Japanese onslaughts. In September 1939, although the French and British Navies were fighting in comradeship, and the American battle fleet was still intact in its base at Pearl Harbour, the Admiralty was well aware that it would have to 'balance risks'. Its plan under the 'new standard' had been to establish at Singapore a fighting force built upon eight capital ships; but in the summer of 1939 the Chiefs of Staff had ruled—and the Southern Dominions had been told—that under existing circumstances no more than two capital ships could be spared for Singapore. And yet, within the

¹ This theme is thoroughly treated in Professor M. M. Postan's *British War Production*, in this series (H.M.S.O., 1952).

general framework of the rearmament programme, the Navy's claims had been proportionately well treated; the Admiralty could hardly complain that it had got less than its fair share of the money that was provided.

Nor could the Air Ministry complain that it had got too small a share. As far back as March 1934 Mr. Baldwin had promised the House of Commons that the Government would not accept in air power 'a position inferior to any country within striking distance of our shores'.¹ In the years that followed, the mystic word 'parity' was reiterated until it became almost an incantation. It was a word that eluded precise definition. It might mean numerical equality in all types of aircraft. It might mean numerical equality of bombers only: for should not British fighter requirements be assessed, not on the crude numerical basis of fighter against fighter, but in relation to the bombing strength of the enemy and the vulnerability of the targets which he would attack? Indeed, should not the crude test of numbers be discarded even for bombers? Were there not many qualitative elements—such as speed, structure, bomb load—to be included in any realistic comparative estimate of air strength? Gradually, the concept of parity gave place to the less pretentious concept of security. But in the pre-radar days, security itself was rather an ambiguous concept; in those days it was not so very far from the truth to prophesy that the bomber would always get through. If that were so, the deterrent of counter-bombing was the most likely guarantee of British security. Parity—if the word were to be resurrected at all—should be given the interpretation of 'bomb for bomb'. Along this path of reasoning, the Air Ministry built up programmes which, even after their bias had been in some degree corrected by decisions of the Cabinet, laid exceedingly heavy stress upon the production of heavy bombers. Simultaneously, and in contrast with the German programmes, they laid heavy stress on the building up of deep reserves. At the beginning of the war, the Royal Air Force was much inferior to the *Luftwaffe* in immediate front line strength, but superior to it in some at least of the foundations that the Air Staff had laid for the maintenance and expansion of its power.

Of the total sums made available for British rearmament, the Navy and Air Force between them were given so large a share as to rule out all possibility of an adequate Army programme. It was generally agreed that the Army had three functions to perform: to maintain the imperial garrisons overseas, to share the tasks of home defence, and to provide a well-equipped field force ready to proceed overseas wherever it might be wanted.² But the Army's efforts to fit

¹ H. of C. Deb., Vol. 286, Col. 2078.

² Cmd. 5107 of 1936. *Statement Relating to Defence.*

itself for this third function were progressively frustrated. In 1935 the Defence Requirements Committee had recommended a field force of seventeen divisions—five regular divisions, and twelve divisions of territorials to follow the regulars as reinforcements. The Cabinet accepted this recommendation in principle; but postponed to an unspecified date the equipment of the territorial divisions. By 1937 it had come to be accepted that only four territorial divisions, instead of the original twelve, would be made available as reinforcements; it was also decided that for the whole territorial army (excepting two anti-aircraft divisions) nothing more than training equipment at a total cost of nine million pounds would for the present be furnished. By 1938 the field force had in effect been given a ceiling of five divisions by elimination of all provision for territorial reinforcements. In this year—the year of Munich—the United Kingdom had no more than two divisions actually available for service on the Continent. The justification of all this was contained in the then-ascendant theory of ‘a war of limited liability’. It was in the summer of 1937 that this phrase appeared for the first time in a British official document. A full-blown Ministry of Supply, the authors of the document contended, would not be necessary: a Ministry of Material Resources, together with expanded production departments in all three Service ministries, would be sufficient support for the United Kingdom’s war plans, assuming that they were based ‘... on what may be termed a war of limited liability, i.e. for example, that there will be no such expansion of the Army, and consequently of military supply, as occurred in the last war . . .’—or at least, that such an expansion need not be anticipated in advance of war.

The Munich crisis made this theory an untenable one. Two years before, military conversations had been initiated between British and French experts, but they had been held at a low level where the larger issues could not easily be examined.¹ After Munich, the French had a new measure of their need—the lost thirty-five divisions and the lost armaments industry of Czechoslovakia. The British also had a new measure of their own need; they were for the first time brought face to face with the fear that the much-vaunted Maginot Line might be overrun or turned and that the United Kingdom might be confronted with the German land, air and naval forces securely established across the Channel. A thorough review of British commitments and plans had now to be undertaken in preparation for new conversations with the French. The conversations began in March 1939, almost simultaneously with the German seizure of Prague.

¹ They were initiated in London in April 1936, following Germany’s occupation of the Rhineland in violation of the Locarno Treaty; but they lasted only three days. After the German occupation of Austria in March 1938 they were resumed, and during the next twelve months ‘pursued a somewhat desultory course at the Attaché level’.

Their upshot was a far-reaching agreement for Anglo-French co-operation on a three-Service basis in every important strategical sphere. The main British contributions of strength in the opening phase of war would still be through the naval and air arms; but the British Government engaged itself to prepare an army of thirty-two divisions and to have it ready for service wherever it was needed before the end of the first twelve months of war.¹ So ended limited liability.

The concept of total war, which in the days of leisurely study had been accepted as a matter of theory, began now to find practical embodiment in the rearmament programme. Despite the heavy pressure under which some of the planning staffs had been working since the winter of 1935-36, the total effort of rearmament had not hitherto been very large. This is shown by the figures of defence expenditure.

	Defence Expenditure		Total Defence Expendi- ture	Changes in Taxation (Estimated)		Total Tax Revenue	£ millions Surplus or Deficit
	From Revenue	Under Defence Loans Act		First Year	Full Year		
1935-36	137	—	137	— 6	— 11	739	+ 3
1936-37	186	—	186	16	20	783	— 6
1937-38	197	65	262	15	36	841	+ 29
1938-39	272	128	400	30	35	896	— 13

The figures indicate a marked acceleration of the programme in 1938, the last calendar year of peace; but even in that year the total defence expenditure amounted to no more than seven per cent. of the national income.²

The contrast between this limited effort and the almost unlimited anxieties which have been already described demands explanation. The explanation is to be found, in part, in the conceptions of financial policy which were then prevalent. In 1934, when the newly appointed Defence Requirements Committee recommended a deficiency programme involving an expenditure of a bare £82 millions, spread over five years, the Cabinet decided to cut the programme by one third. The Chancellor of the Exchequer declared roundly that the Cabinet had been presented with proposals impossible to carry out. As the nation's economic recovery continued and its military

¹ Although the present book is not a military history, it may be of value to state more precisely the engagements towards France assumed by the British Government on behalf of the British Army. The Government had agreed: (1) to send over the Regular Army of four infantry and two mobile divisions within the first six weeks of war; (2) to have available the first ten territorial divisions in the fourth, fifth and sixth months after the outbreak of war; (3) to have available the last sixteen territorial divisions from the ninth to the twelfth months. The actual commitment to send divisions to the Continent related to the Regular Army only: it was agreed that the use to be made of the territorial divisions would be decided according to the circumstances of the time, in consultation with the French Government.

² See Table I (a) on p. 75.

danger increased, this notion of the financial possibilities was subjected to revision: the rearmament programme accepted early in 1936 contemplated an expenditure in the next five years of £1,047 millions, and by the following year the expenditure forecast had swelled to £1,500 millions. At the same time, additional burdens were being imposed on the taxpayers; there were small increases of income tax and extensions of customs and excise duties; in 1937 national defence contribution, the mild ancestor of excess profits tax, made its first appearance. More significant still was the passage through Parliament in 1937 of the Defence Loans Act, authorising the Government to borrow to meet defence expenditure up to a limit of £400 millions—a limit which by an amending act of February 1939 was extended to £800 millions. By now the Government had at last broken through the barriers of its own financial doctrine. But the process had been a slow one. At the end of 1936, when the German economy was already in the stage of full employment or at least very close to it, the Minister for Co-ordination of Defence warned the House of Commons: ‘. . . Remember that we depend upon the resources of finance for the successful fighting of a war as much as upon the production of munitions’.¹ In so far as this warning referred to the financing of essential imported supplies, it was a salutary one; but in the sphere of home-produced supplies the antithesis between finance and production was false. There existed in 1936 a crying national need to use finance as an instrument for accelerating the production of munitions by bringing into the sector of defence economy, resources which were employed elsewhere, or were not as yet employed at all. When war broke out in September 1939, there still remained in the United Kingdom over a million unemployed men and 300,000 unemployed women.

A parallel doctrine of economic practice, which may be called ‘the doctrine of normal trade’, was operating simultaneously to impede the mobilisation of economic resources in the war sector. Believing that ‘industry ought not to be interfered with’, the Government was attempting to impose rearmament upon recovery within an uncontrolled economy. In consequence, the Service departments discovered that their increased votes of money were inadequately reflected in additional supplies or additional productive capacity for the expansion of supplies. Sometimes they found themselves unable to expend the full sums allocated to them because

¹ H. of C. Deb., Vol. 317, Col. 744. This conception of finance as a ‘fourth arm’, a full and equal partner with the Navy, Army and Air Force in the nation’s military effort, found expression even after the outbreak of war. Cf. the speech of Sir John Simon introducing the special war budget of September 1939 (H. of C. Deb., Vol. 351, Col. 1362, 27th September 1939.) ‘Finance, as has been sometimes said, is the fourth arm of Defence . . . for if finance failed, then the prop that sustains the whole of our war effort would collapse.’

British firms, being already choked with orders for the home and export trades, were unable to give prompt attention to government orders. In September 1937 the Secretary of State for Air declared that continued adherence to the doctrine of normal trade would postpone completion of the aircraft programme for two whole years—from 1939 to 1941. Next month the Foreign Secretary came to the support of the Air Ministry by submitting a memorandum which called for 'some more deliberate national effort than that upon which we are now engaged'. Similar complaints and demands came from the Admiralty and the War Office, and in February 1938 the Chiefs of Staff declared roundly:

. . . We are attempting to carry out an armaments programme on a scale never yet attempted except in war, in peace conditions, and subject to a policy of non-interference with normal trade, which cannot fail to be a serious handicap with potential enemies whose whole financial, social, and industrial system has, in effect, been mobilised on a war footing for at least three years.

At last, on 22nd March 1938, the Cabinet took the decision to cancel the assumption on which the reconditioning of the Services had hitherto been based, namely that the course of normal trade should not be impeded.

The financial and economic ideas which have been discussed above were not the only impediments, perhaps not even the main ones, to speedy and adequate rearmament. Intermingling with them and often governing them were the unresolved contradictions of leadership and the national will. An agreed statement of the national interest and duty emerged very slowly out of the long debate between Government, Parliament and people: clarification of mind and concentration of will were not unshakably achieved until the great testing time of 1940. The historian of the United Kingdom's war economy will recognise this deeper historical theme. He will recognise it, but will not himself pursue it; he must keep within the boundaries of his own more measurable task.

Even within these boundaries, he must resist the temptation to explore too far the comparative measurement of British preparations against those of other nations, whether hostile or friendly. A genuinely comparative study of war economy as a non-national phenomenon would have great scientific value, and will in later years become achievable; but it cannot possess a sound basis until the separate national war economies—each in its own special context of economic and political circumstance—have been reliably investigated and explained. Subject to this reservation, some brief reference to what is already known about Germany's economic preparations for war will throw into sharper relief the main features of the

rearmament period in the United Kingdom.¹ By the end of 1936, Germany had achieved what may fairly be called full employment. Moreover, in the interests of the armaments programme, the German Government imposed controls stringent enough to prevent the accelerated economic effort of the nation from producing, at most, anything more than a small fraction of its natural effects in the improvement of consumer standards. In 1938, the last calendar year of peace, the German Reich, by Professor Brown's calculation,² was spending on armaments the equivalent of £1,710 millions out of a total national income at market prices of £7,260 millions. For the United Kingdom, the figure of armaments expenditure in the same year was £358 millions out of a total national income at market prices of £5,242 millions. In the aggregate, German expenditure on armaments in 1938 was nearly five times as large as British expenditure and it was absorbing nearly a quarter of national income as against a bare seven per cent. in the United Kingdom. This striking statistical contrast, although it falls short of exact statement, goes far to explain military events in the first period of the war. It is, of course, chiefly a product of the contrast in policy; the economy of the Reich, fully employed and firmly controlled, was already geared to war, while the economy of the United Kingdom was still far from full employment and only beginning to disentangle itself from the doctrine of 'normal trade'.

There was, however, a second contrast of more hopeful significance in long term—if long-term views were justified. As has been seen, British war studies had from a very early date defined a great war as one which would engage and absorb all the resources of the nation. They had assumed the steady unfolding of an economic effort which, however hesitant it might be in its beginnings, would in its conclusion demand the maximum of civilian sacrifice and achieve the maximum of military striking power. This was the concept that had governed the rearmament programmes of the Air Staff, with their deliberate sacrifice of immediate front line strength in order to build up for the future deep reserves of strength; the same concept expressed itself elsewhere in plans for large expansions of capital equipment. Left to itself, the German General Staff would have chosen to build on the same strong and deep foundations. But such

¹ A preliminary short survey of Germany's economic effort, based on German documents and the interrogation of German officers and officials, was published in 1946 by the United States Strategic Bombing Survey in a volume entitled *The Effects of Strategic Bombing on the German War Economy*. A very good beginning in the international comparison of national rearmament and war-efforts, measured by the statistics of national income, has been made by Professor A. J. Brown. See his *Applied Economics* (London 1947), Chapters I and II.

² See Table V in Brown, *op. cit.*, p. 23. The United Kingdom national income figures have since been revised; the proportions, however, remain much the same as in Professor Brown's table.

a policy—failing the will to impose immediate heavy sacrifices upon the German people¹—would have postponed, possibly until 1945, German preparedness to wage aggressive war. Hitler therefore imposed upon the General Staff a different policy, 'rearmament in width' instead of 'rearmament in depth', the mobilisation of preponderant front line strength at the earliest possible date.

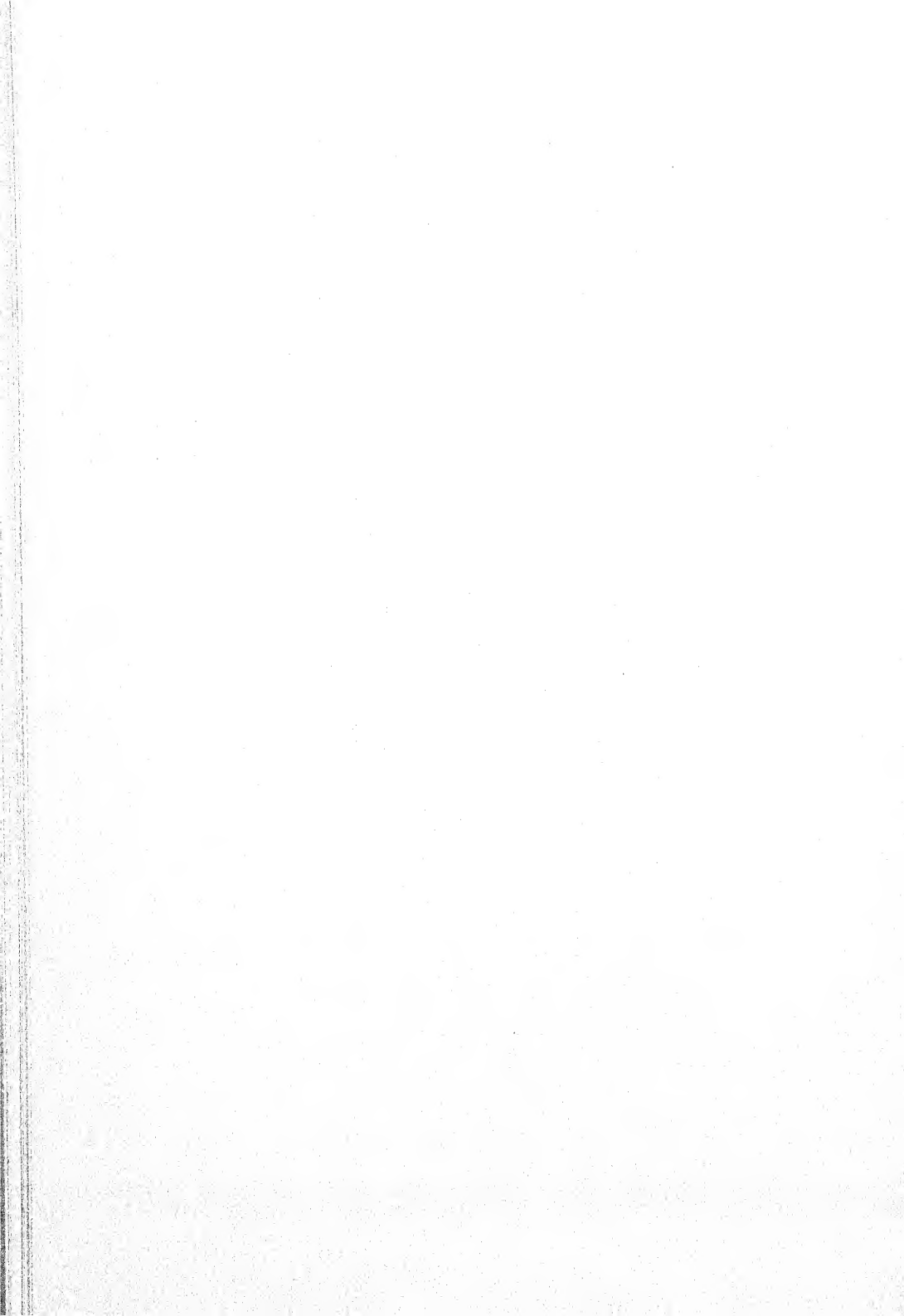
When war broke out, the British and German Governments both continued to forecast the course of its events according to the contrasted concepts which were already in their own minds. The British Government based its 'assurance of victory' upon an estimate of the long-term superiority of combined British and French economic resources over enemy resources. It assumed that time would be vouchsafed to the British and French Empires to translate their potential power into effective war-making power. 'The Allies are bound to win in the end,' declared Mr. Chamberlain, 'and the only question is how long it will take them to achieve their purpose.'² The natural sequence of strategical phases in a war against the Axis powers had been defined in advance by the French and British war-planners: first, defeat of the enemy's attempt at a knock-out blow and the beginnings of Allied economic pressure; secondly, the building up of Allied offensive power and the launching of it against Italy; thirdly, the great offensive against Germany, and her final defeat. This conception of the war was destined to fulfil itself in 1945; but in 1940 it almost collapsed in the very first phase. According to Hitler's strategical conception, that phase was to be the all-important one—and for the western powers, the only one.

¹ There is, of course, a difference between preventing the improvement of consumer standards (as explained above) and heavily depressing them. As later chapters will show, the British Government imposed on British civilians during the war much heavier sacrifices than the German Government was willing or able to impose on German civilians.

² This sentence from a speech of 26th November 1939 was quoted on the title-page of the pamphlet *Assurance of Victory*, published in the winter of 1940 by the Ministry of Information.

PART II

Period of the Anglo-French Alliance



STATISTICAL SUMMARY

In this book, the 1939-45 war has been divided into four chronological periods, each of which is treated in a separate part. The first three of these parts will be prefaced by a short statistical summary designed to focus the salient economic trends of the period and to show them in relation to the past and future periods of the war.¹ The past and future dates chosen for comparison vary according to the individual table; for example, for manpower 1943 has been chosen as the peak year for mobilisation, but in most other tables the forward comparison is with 1944 as the last complete year of the war.

The periods of this book have been fixed by strategic events and do not therefore coincide with the normal measuring periods of economic statistics; the nine-months period of the Anglo-French Alliance is a particularly awkward fragment. Nor are the measuring periods of all the statistics identical. The national income figures, for example, relate to calendar years; but the main manpower figures come from the 'July count' of insurance cards. The statistical summaries, therefore, inevitably run across the strategic boundaries.

I. NATIONAL FINANCE

(a) *National Income and Expenditure*

	£ million				Percentages			
	1938	1939	1940	1944	1938	1939	1940	1944
1. National income . . .	4,707	5,075	6,066	8,310	100	100	100	100
2. National cost of consumers' goods and services	3,713	3,791	3,931	4,452	79	75	65	54
3. Government current expenditure:								
i. War	327	763	2,600	4,481	7	15	43	54
ii. Other	440	480	484	536	9	9	8	6
4. Net capital formation at home	297	291	-145	-500	6	6	-3	-6
5. Net lending abroad . . .	-70	-250	-804	-659	-1	-5	-13	-8
6. Net national expenditure at factor cost	4,707	5,075	6,066	8,310	100	100	100	100

Figures for national income and expenditure are *net* in that they exclude sums allowed for depreciation and maintenance and are at *factor cost* in that they include subsidies but exclude indirect taxes.

Source: Cmd. 7371 and Central Statistical Office

¹ Munition figures are excluded; they have been left to the companion volume *British War Production*.

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(b) Personal Expenditure on Consumers' Goods and Services at 1938 Prices

£ million				
	1938	1939	1940	1944
1. Food	1,287	1,307	1,138	1,120
2. Alcoholic beverages	285	296	276	274
3. Tobacco	177	182	178	205
4. Rent, rates and water charges	491	504	508	503
5. Fuel and light	197	199	202	193
6. Household goods	288	274	216	100
7. Clothing	446	444	372	275
8. Books, newspapers and magazines	64	63	59	73
9. Private motoring	127	113	38	8
10. Travel	163	155	132	188
11. Communication services	29	29	27	42
12. Entertainments	64	61	53	90
13. Other services	483	471	438	343
14. Other goods	177	177	162	113
15. Income in kind of the Armed Forces	17	28	67	152
16. Total of above items	4,295	4,303	3,866	3,679
17. Adjustment ¹	-7	5	17	27
18. Total	4,288	4,308	3,883	3,706

Source: Cmd. 7371 and Central Statistical Office

(c) Average Weekly Government War Expenditure Exchequer Issues for Defence and Vote of Credit Expenditure

				£ thousands	
1939	September	19,600	1941	June	68,800
	October	20,700		December	87,800
	November	31,700			
	December	29,600		1944	June	90,300
		December	91,100		
1940	January	33,200			
	February	33,600			
	March	40,900			
	April	33,100			
	May	35,500			
	June	51,800			
	December	70,600			

Source: Central Statistical Office

(d) Disposal of Personal Income

Percentages				
	1938	1939	1940	1944
Consumers' expenditure at market value	88	86	80	69
Direct tax payments	9	9	10	16
Saving and additions to tax reserves	3	5	10	15
Personal outlay	100	100	100	100

Source: Cmd. 7371 and Central Statistical Office

¹ The adjustment is to convert the total in line 16 to a total of purchases out of British income.

(e) Prices and Wages

	Weekly wage rates: estimated increase in all industries ¹ Sept. 1, 1939=100	Average weekly earnings in certain industries ² % of Oct. 1938	Cost of living Sept. 1, 1939 =100	Price index of total consumers' expenditure 1938 =100	Import prices Aug. 1939 =100	Export prices Aug. 1939 =100	Wholesale prices Aug. 1939 =100
1939 Sept. Dec.	100 102-103		100 112	Year 1939 =102	129	104	108 125
1940 March June Sept. Dec.	107 109-110 114 115	130	115 117 121 126	120	143 148 151 153	114 121 128 132	131 137 144 151
1944 Dec.	145-146	176	130	Year 1944 =150	See Note 3	See Note 3	170

Source: Central Statistical Office

2. MANPOWER

(a) Total Population of Great Britain

Thousands

	1939	1940	1944
TOTAL	46,466	46,889	47,627
0-13	9,231	9,187	9,239
M. 14-64 }	31,923	32,281	32,386
F. 14-59 }			
M. 65 and over }	5,312	5,421	6,002
F. 60 and over }			
MALES	22,332	22,632	22,975
0-13	4,672	4,656	4,698
14-64	15,887	16,168	16,261
65 and over	1,773	1,808	2,016
FEMALES	24,134	24,257	24,652
0-13	4,559	4,531	4,541
14-59	16,036	16,113	16,125
60 and over	3,539	3,613	3,986

NOTE: (1) The figures have been given for Great Britain only, to correspond as closely as possible with the tables given elsewhere showing the distribution of manpower by industry. It should be noted however that in the manpower tables the figures for the Armed Forces include an unknown number of recruits from outside Great Britain (mainly from Northern Ireland and Eire) who are not included in the total population figures above.

(2) The figures for 1939 exclude men serving overseas in the Armed Forces and Merchant Navy (estimated at between 200,000 and 250,000). From 1940 onwards all members of the Armed Forces and Merchant Navy are included, whether at home or overseas. Prisoners of war in enemy hands are included in 1944, but are mainly excluded from earlier figures.

Source: Central Statistical Office

¹ Some small industries are omitted. Figures for wage rates relate to the end of the previous month in order to make them comparable with the cost of living index, which relates to the beginning of the month mentioned.

² The figures represent the average earnings, including bonus, overtime, etc. and before deduction of income tax or insurance, in one week, in January and July of each year. Administrative and clerical workers and other salaried persons are excluded.

³ There are no comparable figures in this series after 1941.

(b) *Distribution of Labour Force of Working Age in Great Britain*

	Thousands		
	June 1939	June 1940	June 1943
Working Population:			
Total	19,750	20,676	22,286
Men	14,656	15,104	15,032
Women	5,094	5,572	7,254
Armed Forces:			
Total	480	2,273	4,762
Men	480	2,218	4,300
Women	—	55	462
Civil Defence, N.F.S. and Police:			
Total	80	345	323
Men	80	292	253
Women	—	53	70
Group I Industries:			
Total	3,106	3,559	5,233
Men	2,600	2,885	3,305
Women	506	674	1,928
Group II Industries:			
Total	4,683	4,618	5,027
Men	4,096	3,902	3,686
Women	587	716	1,341
Group III Industries			
Total	10,131	9,236	6,861
Men	6,387	5,373	3,430
Women	3,744	3,863	3,431
Registered Insured Unemployed:			
Total	1,270	645	60
Men	1,013	434	44
Women	257	211	16
Ex-Service men and women not yet in employment:			
Total	—	—	20
Men	—	—	13
Women	—	—	7

NOTE: (1) The figures include men aged 14-64 and women aged 14-59, excluding those in private domestic service. Part-time women workers are included, two being counted as one unit. The figures refer to Great Britain only except for the Armed Forces, which include an unknown number of volunteers from Northern Ireland, Eire, etc.

(2) Group I covers metal manufacture, engineering, motors, aircraft and other vehicles, shipbuilding and ship-repairing, metal goods manufacture, chemicals, explosives, oils, etc.

Group II covers agriculture, mining, national and local government services, gas, water and electricity supply, transport and shipping.

Group III covers food, drink and tobacco, textiles, clothing and other manufactures, building and civil engineering, distribution trades, commerce, banking and other services.

Source: Ministry of Labour and National Service and Central Statistical Office

the press, there had been little evidence of awakening to the peril of the time. Indeed in November 1939 the War Cabinet, fearing public discontent, had even considered relaxing the controls so recently imposed. National awakening might have come sooner if Hitler had launched his expected *blitzkrieg* in the west. But all was quiet on the western front and the bombers did not come.

(iii)

Strategical Background

In all essentials, the strategical principles agreed upon by the British and the French in May 1939 remained in force after 3rd September.¹ The Germans, it is true, did not open the first phase of the war in the gruesome way that had been anticipated, nor did the Italians show any clear intention of intervening. At first, the Allies welcomed this respite as an unexpected gift of time, allowing them to develop undisturbed their own deliberate plan of war. They believed that they could do nothing to prevent the enemy from striking down Poland and that it would be a big mistake for them to attempt offensive land operations in the west. They ruled out an air offensive in the belief that it would call down on their own cities retaliation out of all proportion to the damage it could inflict on the enemy.² They felt themselves compelled to remain on the defensive until they had narrowed the gap between Allied and German resources, or until the Germans 'took some action which threatened decisive results against us or the French'. They did not dispute the enemy's initiative.

At home there was anti-climax; no air raids, no mass slaughter, but some social strain and soon considerable boredom. Static war, or 'phoney war', as some people began to call it, was not after all so very different from the phoney peace of recent years. On 9th September, when the Germans were at the gates of Warsaw, the British Prime Minister announced that his Government was preparing for a three years' war.³ In the lull that came after the dust and ashes had settled upon Warsaw this announcement seemed somehow comforting; it meant there would be no negotiated peace, it meant that time was 'on our side'. At sea indeed there was no 'phoney' war. The merchant seamen were facing danger and death. Though the Royal

¹ See above, p. 67.

² The Germans were thought to have over 2,000 bombers in September 1939 against an Allied total of 950. In fact, Germany then had a total of 1,442 bombers of which 1,343 were immediately available (Air Ministry figures).

³ *The Times*, 11th September 1939.

Navy was bringing most of the convoyed ships to port, it had to cope not only with U-boats but with ocean raiding by pocket battleships.¹ It was also striving to draw a tightening ring around the German economy. On land and in the air life was easier. A British Expeditionary Force—small, perhaps, but ‘wonderfully prepared’²—had crossed the Channel into France, where, it was popularly supposed, an impregnable Maginot Line stretched from the North Sea to Switzerland. British soldiers sang that they would hang out their washing on the Siegfried Line. Meanwhile the Royal Air Force was scattering over Germany leaflets which proclaimed not only the wickedness but also the weakness of the German Reich. In British propaganda, at home as abroad, the dominant note was ‘assurance of victory’.³ If this assurance did not intimidate the enemy, it lulled the British people.

Perhaps it lulled the British Government. Accepting its own military passivity as inevitable and the enemy’s unexpected pause as a reprieve, the Government pushed on the work of rearmament in depth, designing long-term programmes of expansion to yield fruit in future years. The programmes were of varying ambition. The merchant shipbuilding programme was not particularly impressive, but it was complementary with a warship-building programme designed to exploit United Kingdom and Empire capacity to the full.⁴ The Air Ministry aimed high—at 2,500 aircraft a month by mid-1942 and more thereafter. The Ministry of Supply was authorised by the War Cabinet to begin industrial preparations for a fifty-five division Army—the thirty-two British divisions already agreed a few months back, and an additional twenty-three divisions to be supplied by the Dominions, India and prospective Allies. This fifty-five division scheme was an aspiration rather than a programme; it was soon hedged about by conditions whose fulfilment was not yet in sight and it was destined for a time which the War Cabinet called vaguely ‘as soon as possible’. Here was no immediate answer to the rearmament in width already achieved by Hitler. The conversion of British industry to a full war basis did not move fast. Government expenditure, even with its figures concealing a substantial rise in prices, rose gently from about £20 millions a week in the first two months of war to about £33½ millions a week in the sixth month.

But the blockade was already operating and the British people expected great things from it. Their expectations derived in part from the political education given to them in the wistful peace-time

¹ The pocket battleship *Graf Spee* was destroyed by British cruisers in December 1939.

² *The Times*, 11th September 1939.

³ See Chapter II, p. 72.

⁴ The programme was 1,100,000 gross tons a year—scarcely any larger than what commercial enterprise, with a little help from subsidies, had achieved in 1938.

years, when the power of blockade was re-named 'sanctions' and envisaged as an instrument of the new international order. Many people had believed that 'sanctions' could achieve mastery over the armed forces of even the strongest nations; it was natural for them to keep on believing it when yet another name for the same thing—this time it was 'economic warfare'—signified the collapse of the international order and the reversion of blockade to its traditional role as an instrument of national policy. These changes of name were perhaps partly due to the realisation that new methods of assault and constraint were now available to reinforce the action of naval blockade; but they were also due to the successful German propaganda against the 'hunger blockade' of 1914-18. In denouncing its inhumanities, the Germans had exaggerated its successes, thereby covering up the mistakes their own government had made in planning the German war economy. The distortion was a useful aid to German policy abroad, for it fostered the illusion in the western democracies that blockade, sanctions or economic warfare—the name does not matter—could be employed as a substitute for military force.

British statesmen and their expert advisers had shown between the wars considerable uneasiness over this popular tendency to 'exaggerate the potency of the blockade weapon'. They were aware that many of the drastic effects popularly attributed to the blockade had in fact been produced by mistakes of German economic policy before and during the First World War, by its failure to build up stocks of fertilisers and food, by its faulty distributive mechanism and the lack of balance in its agricultural effort.¹ When in 1937 they sharpened their studies of blockade policy and focused them upon the German economic system, they found it hard to believe that the German Government and its experts would be taken in by their own propaganda and make the same mistakes again.² Admittedly, the Germans were heavily dependent upon overseas supplies of iron-ore, manganese, alloy metals, liquid fuels, edible fats and some other materials; but it was thought that they were building up plentiful stocks of these commodities and preparing large schemes of substitute production. It seemed probable that the German war machine would be able to run at full strength for fifteen or eighteen months at least, even if the blockade drastically cut down essential German imports.

When war came, this drastic cut could not be imposed. The Ribbentrop-Molotov pact had guaranteed German access to the

¹ The authority is Dr. R. Kuczynski (*Deutschlands Versorgung mit Nahrungs- und Futtermitteln*, 1927) of whose work Lord (then Sir William) Beveridge made use in the pamphlet *Blockade and the Civil Population*, 1939.

² In fact, German stocks were low on the outbreak of war (see U.S. Strategic Bombing Survey, *op. cit.* Chapter vi).

economic resources of all Europe east of the Rhine. By intimidation or cajolery, the Germans were able to assure the flow of supplies from their neutral neighbours, including the Scandinavian countries. As intimidator and cajoler the British Government was less successful; for it was chary of provoking unfriendly neutrals or offending friendly ones.¹ Shortage of foreign exchange circumscribed its plans to forestall the Germans in purchases from neutral countries. Its desire to observe existing rules of international law, except in so far as German action justified reprisals, hampered its attempts to ration forcibly the imports of neutrals, or to block enemy exports. Moreover, the international law concerning blockade was subject to rival interpretations: the United States were by tradition the opponents of the British doctrine of blockade and the champions of neutral rights. Difficulties arising from this cleavage of opinion were not completely eradicated until the Lend-Lease Act was passed in March 1941. With all these hindrances to contend against, Allied economic warfare during the first six months of the war could not make much of a dent in the enemy's strength. Paradoxically, the British Government seemed now to be forgetting its earlier and more sober estimates of possible achievement. At the meeting of the Supreme War Council at the end of March, the British Prime Minister acclaimed economic warfare as 'the main weapon'.

By this time, however, the British and French Governments were ready to think out ways and means of sharpening their 'main weapon' and using it more resolutely. They felt that they must take a firmer line with some of the neutrals that were supplying Germany. Their military advisers were becoming increasingly uneasy about the undiluted passivity of Allied strategy. Spring was approaching, but the gap between Allied and German resources seemed just as great as it had been in the previous autumn. An offensive on the western front could not be attempted in 1940 and might well be impossible before 1942. Even then, the disparity between Allied and German divisions made any hopes of success depend partly on the development of new tactical methods and weapons, partly on the participation of Belgium. Yet meanwhile Belgium could not even be persuaded into staff conversations with the Allies to provide for her defence if she should be invaded. All this was disheartening, and the Chiefs of Staff felt constrained in March 1940 to utter a warning. 'Time is on our side', they said, 'only if we take the fullest possible advantage of it.' The moral and political disadvantages of passivity, as well as the military ones, were becoming only too obvious. Between September and March the British War Cabinet had more than once given attention to reports which suggested that public

¹ An account of the trade agreements negotiated with neutrals is given in Professor W. N. Medlicott's *Economic Blockade*, Vol. I, in this series (H.M.S.O., 1952).

opinion in France was 'highly restive'. The trend of public opinion in neutral countries was a cause of considerable anxiety to both Governments. At the end of March, M. Reynaud pictured to the Supreme War Council a general feeling among neutrals 'that the war had reached a deadlock, that Germany had only to wait, and that then, like the better of a pair of chess players, she would be able to take her enemy's pieces one after another'. A war, after all, could not be won merely by trying not to lose it. Such an outlook, the Chiefs of Staff declared, was very unlikely to inspire neutrals who, whatever might be their sympathy with the Allies, had no wish to share the fate of Poland.

Within the agreed framework of defensive strategy a more spirited policy was needed, and in March 1940 the Supreme War Council tried to provide it. A desire to force the pace, yet without any frittering away of resources, bore fruit in plans for certain perimeter operations which would strengthen the blockade, cut off some valuable imports from the Germans, compel them to consume their stocks, and at the same time bolster up domestic and neutral morale. Nothing need be said of these schemes, for while they were being constructed the days of grace were swiftly passing. It was not the new plans that were called into operation but the older defensive plan for resisting German attacks in Norway and in the Low Countries.

As early as the first week of May the Chiefs of Staff felt themselves compelled to assess Great Britain's chances in a war that she might be compelled to continue alone. In a study of 'British Strategy in a Certain Eventuality' they ruled out submission but saw no chance of final victory unless full economic support were forthcoming from the United States. Looking to the immediate future they saw no prospect save a desperate defence. At home, the most urgent of many needs was for fighter aircraft and crews for the approaching battle against the German air fleets and possibly the invading German Army. Abroad, the western basin of the Mediterranean would be dominated by the enemy; but Suez and the approaches to the Middle East must be held. At the other end of the world Singapore must be strengthened lest the Japanese attack. And after these defensive battles had been fought and won—what then? The Chiefs of Staff believed in the possibility of victory; but they did not as yet look so far as the final victorious assault of a new British Army against the European Continent. They envisaged prospects that then seemed nearer—revolt in conquered Europe, and, most of all, the effects of economic pressure. The Chiefs of Staff based their conclusions about economic pressure upon prophecies from the Ministry of Economic Warfare that in 1941 Germany would suffer acute shortages of food, fuel and industrial supplies. They said they could not emphasise too strongly the

importance of the substantial accuracy of this forecast, since upon the economic factor depended the only hope of bringing about the downfall of Germany.

In fact, German's economy was immeasurably strengthened by her conquests and the Ministry of Economic Warfare's forecasts were sheer illusion. But at a time when the British Government and people were in stern reaction against their earlier complacent mood, one or two illusions may possibly have done less harm than an overdose of the harsh truth would have done.

So the strategical programme seemed, superficially, what it had been before—a military defensive and an economic offensive. But the defence must now be desperate instead of leisurely and the economic offensive must come from the air as well as from the sea. Even that was thinking too far ahead; for with France fallen the chief function of British air power must be to join the Navy in its traditional task of maintaining the island security of the United Kingdom. And in those same summer months the whole emphasis on the value of sea power shifted. The Italian fleet had joined the enemy, the French fleet had given up the struggle and might perhaps fall into enemy possession, German submarines now had bases on the Atlantic coasts of Norway and France. In the Far East the Japanese Navy was threatening. The Royal Navy had suffered heavy losses of destroyers in rescuing the British forces in Norway and France. Less emphasis was placed upon its part in waging a war of attrition on the enemy's economy and much more emphasis on its primary duty to keep an invading army from British shores and to safeguard the flow of overseas supplies.

CHAPTER IV

CASH AND CARRY

(i)

Overseas Supply

IN THE Second World War, it was not naval blockade but air bombardment that proved itself in the end to be the most devastating weapon of warfare against the enemy's economic power. Nevertheless, naval power confuted all those prophets who in enemy countries and elsewhere had foretold its obsolescence in modern war. Fused in new ways with the other elements of warfare, it still maintained its old advantages of flexibility and surprise. At Dunkirk it brought deliverance to an outmatched army; at Salerno and Normandy it assembled the avenging armies and supported their assault. These were the dramatic battles; between them was the never-ceasing battle of supply—the Malta convoys, the Arctic convoys to Russia, the Battle of the Atlantic which was fought year in year out to safeguard those overseas reinforcements of war-making power that in the end overwhelmed Hitler's Continental fortress.

Economists have sometimes attempted to measure the advantage of overseas supply in statistical terms. Even in the dark year of 1941, the economists of the War Cabinet Office, piecing together their knowledge of British figures and their guesses at German and Italian figures, concluded that the war production of the United Kingdom was already closely matching that of her enemies—a prodigy of achievement which a nation so heavily outmatched in population could not even have approached, had not its own efforts been intermeshed with the productive labour of other countries. It would take too much time to confront these estimates of 1941 with our retrospective knowledge of Germany's performance; but it may be confidently asserted that the estimates revealed one important truth. Taking full advantage of the international division of labour, the United Kingdom was enabled in large measure to rectify her numerical inferiority by mobilising in the immediate war zone a much higher proportion of her much smaller population. Not to mention the Allied and associated countries on either side, Greater Germany had in mid-1939 a population of nearly 79½ millions with a total military and working force of about 40½ millions: Great Britain's population was

nearly 45½ millions, of whom nearly 20 millions were gainfully employed. But this formidable contrast in human resources shrinks sensationally when the distribution of the two labour forces is examined. Great Britain, for example, employed on the land less than a million people or not quite five per cent. of her labour force; whereas Germany, to provide her people with food, was employing on the land 11 millions, or twenty-seven per cent. of her labour force. Again, to take a single minor example: the erection by the Germans of twelve synthetic oil plants with a capacity of 3·3 million tons a year was estimated to require 2·4 million tons of structural steel and 7·6 million man-days of labour; with a much smaller expenditure of man-days of labour, Great Britain was able to procure in British-owned or foreign tankers natural oil from the wells of Iraq or Persia or America.¹

The Germans, of course, were able to make other people work for them; by 1944 they were employing in their own country more than five million imported civilian workers and nearly two million prisoners of war—a total of 7·13 million foreign workers, which in large measure explains the gentleness with which the German Government treated its own people, in comparison with Great Britain's relentless mobilisation of manpower. Germany, moreover, was able to draw other economic contributions from a *lebensraum* which after 1940 included the whole of Continental Europe west of the new Russian boundaries. But the productive resources that Germany's land neighbours could make available to the German war economy were immensely inferior to Britain's potential gain from her oceanic neighbours. The agricultural countries of the tropics, although their average economic efficiency was low, could contribute specific commodities of great value, such as rubber and oilseeds, cotton and sisal and cocoa: some of them could contribute valuable minerals as well. The agricultural countries of the temperate zone, such as Australia and New Zealand and the Argentine, had an immensely higher output per man than any of the peasant countries of Europe; they had besides a respectable and increasing manufacturing productivity. And on the continent of North America there was established, both in agriculture and industry, the most formidable concentration of productive power in the whole world.

The United Kingdom's economic advantage was therefore great; but in earning it she had chosen to live dangerously. Whereas the Germans held on secure tenure—until the liberating armies at last drew near—their modest profits from Polish or Bulgarian economic

¹ See U.S. Strategic Bombing Survey, op. cit., Chapter III and appendix: also C. T. Saunders, 'Manpower Distribution 1939-1945' in *The Manchester School*, May 1946. Owing to statistical difficulties the manpower figures are for Great Britain, not the United Kingdom.

effort, the British held on precarious and conditional tenure their much greater benefit from Argentinian or American production. If the Axis powers had been able to break British naval strength they would have turned the tables indeed: the United Kingdom would then have been compelled to struggle for economic self-sufficiency, at so pitiable a level that she could neither have made effective war nor even maintained her civilian population. There was another contrast: Germany was creating in Europe a 'new order' largely subservient to German military command; but the international economic order to which the United Kingdom belonged was still in large measure governed by the notions of economic self-interest held by the individual communities participating in it. Britain might be granted some privileges of deferred payment, her merchant fleet might be reinforced by ships of other nations; but until the coming of lend-lease the strength that she could draw from overseas was sharply limited by her own capacity to pay and to ship. Whereas Germany could use force to exact from her land neighbours a large, if not a full, measure of economic collaboration, the United Kingdom must depend upon the good will of her distant oceanic neighbours, and upon their feeling of a common interest between themselves and her.

The United Kingdom must in particular attune her economic policy to the political decisions of the United States. In September 1939, each self-governing nation of the British Commonwealth, excepting Eire, had by its own sovereign decision made common cause with the United Kingdom; but the United States had proclaimed a rather complicated neutrality. Judging by the experience of the previous war, this neutrality might possibly make all the difference between victory and defeat. Certainly, nothing short of full United States support would have saved Great Britain and her Allies in 1917, when the German U-boats came close to cutting the oceanic life-lines. American supplies had then been made available without stint, along with the credits to pay for them; American yards were then set hard at work to produce millions of tons of shipping to share the dangerous Atlantic passage; American armies were then called up and trained to reinforce the western front. How great was the contrast of 1939 and 1940! The United States were competent, this time, to give far greater help;¹ but they had proclaimed their resolve to give far less. Moreover, as if in distrust of their own passionate sympathies for the democratic cause, they had embodied their resolve in formal legislation of Congress.

¹ In the previous war, American economic aid had been chiefly in materials, food, ships and finance, rather than in finished munitions, for the U.S. had not got to the stage of producing them in large quantities and depended largely on British industry to equip their armies in France.

The historian of the British war economy must not presume to expound the history of the Neutrality Acts of 1935-39; but he is bound to discuss the effects of American neutrality policy upon British economic policy. Far back in the nineteen-twenties, the British Government had feared that America's traditional policy of affirming the trading rights of neutral nations, now that it could for the first time in history be backed by a great mass of American naval power, might wreck altogether the British design of economic warfare.¹ When Hitler came to power, a drastic reversal of United States policy removed this anxiety; but put a more serious one in its place. The British could now go ahead with their plans of naval blockade without fearing that their attempts to weaken the Axis powers would embroil them with the United States Navy; but they were at the same time given warning not to expect effective economic aid from American democracy if they found themselves at war with Germany, Italy, or Japan, or all three together. The new doctrine of American neutrality was thus on balance a discouragement to the democracies, an encouragement to the Fascist powers. Its legislative statement in the Neutrality Act, after reasserting some of the duties that were traditionally incumbent upon neutral powers—for example the duty of refusing refuge and supply to belligerent armed vessels—proceeded to surrender those traditional rights of which the United States had been the foremost claimant for more than 100 years. Instead of claiming for American ships and American citizens the right to pursue their peaceful business in time of war, it forbade them to entangle themselves in the dangers of war. Indeed, the Neutrality Act might very well have been called the Non-Entanglement Act. Its main features reflected the popular conceptions, or misconceptions, of the causes of American entanglement in the First World War.

According to a widely diffused opinion, three causes—apart from propaganda, which in the American view had exacerbated each single cause and all three together—had brought about American participation in a European quarrel: first the interest of the munitions industries, secondly the destruction of American ships and the death of American citizens at sea, thirdly the financial interest created by Allied borrowings on the American market. The neutrality legislation attempted to root out all these evils. First, it imposed an absolute embargo on the export of arms to belligerent states. Secondly, it

¹ e.g. at the time of the Geneva Disarmament Conference of 1927, the British Government believed that the extreme U.S. doctrine of the freedom of the seas underlay the American determination to deny to Great Britain the large force of small cruisers which she wanted. Small cruisers could be used not only to defend trade routes but to enforce a blockade; whereas a small number of large cruisers, which was what the Americans wanted, could be used to prevent British interference with neutral commerce. There is some discussion of the American background to British blockade policy in *Economic Blockade*, Vol. I.

withdrew the protection of the U.S. Navy from American nationals on belligerent ships, and it forbade American ships to enter the combat zones. Thirdly, it obliged belligerent purchasers of American goods to secure a transfer of title before exportation. The first prohibition needs no comment. The second prohibition expressed the policy of 'carry'—i.e. that belligerents must carry in their own ships all cargoes procured by them in the United States, even if those cargoes were only apples or tobacco. The third prohibition reasserted the principle of 'cash'—which had already found another expression in the Johnson Act of 1934, prohibiting loans of money from any person under American jurisdiction to any foreign government in default on its payments to the United States.¹

It is worth remembering that there were certain gaps in this legislation: most noticeably, the exemptions with which the American republics were favoured, and the discretion entrusted to the President to 'find' or not to 'find' a state of war.² Far more important from the British point of view was the expectation, which from the early months of 1939 appeared reasonably well founded, that the outbreak of war in Europe would be followed quickly by important modifications of the Neutrality Act. This expectation was justified on 4th November 1939, when the President approved a 'joint resolution to preserve the neutrality and peace of the United States and to secure the safety of its citizens and their interests'. This resolution, called for convenience the 1939 Neutrality Act, removed the arms embargo; but it stiffened the 'cash and carry' provisions.³

In outward appearance, the amending legislation of 4th November made considerable difference to British supply policy. As far back as July the British Government had made preparations to establish a purchasing commission in the United States; but respect for American susceptibilities had prompted it hitherto to place the main emphasis on procurement in Canada. The 'British Supply Board in Canada and the United States' had its headquarters in Ottawa; in New York it had only an inconspicuous branch office, under the direction of Mr. Arthur Purvis. The excision of the arms embargo changed all that. Mr. Purvis was at once instructed to go to Washington and make contact with the United States administration, not merely on behalf of the British Government, but as chairman of the newly constituted Anglo-French Purchasing Commission.⁴

¹ By a ruling of the U.S. Attorney-General, a token payment was held to be equivalent to default.

² The President 'found' a state of war in the Italian aggression upon Abyssinia, but not in the Japanese aggression against China.

³ In this, the latest version of the neutrality legislation, the 'combat zones' made their first appearance, and foreshadowed the total disappearance of U.S. shipping from all dangerous waters.

⁴ See below, Chapter VII.

Nevertheless, the immediate real effects upon British policy were small. The British Government believed itself to be too sparsely supplied with dollars to justify any considerable expenditure upon American finished munitions, and was determined to limit its purchases as stringently as possible to indispensable materials and tools for use by British workers in British factories.¹ On the other hand, the Government believed itself to be very well supplied with ships. The validity of these two beliefs will be examined in the following sections of this chapter. In so far as they were valid, they appeared to justify policies of food and raw materials importation by the longer shipping haul from those countries—chiefly in the British Empire or the sterling area—which from the financial point of view were more accommodating than the United States.

This approach to the problems of overseas supply was in harmony with the policy of armament in depth and the aim of preponderant military power within the period of a three-year war. If the British and French Governments had realised that Hitler was banking on victory in the west within the first twelve months of war, they would surely have felt themselves compelled to state their import requirements very differently, with a much heavier demand upon the American munitions industries, despite the immediate cost in dollars. Indeed, they began to overhaul their programme in this way even before Hitler started his *blitzkrieg* in the west.

(ii)

Cash

In the chapters which discussed the United Kingdom's previous experience of modern war and British studies of war-economic problems during the nineteen-twenties and thirties, apology was made for postponing consideration of the external financial problem.² The

¹ The first total statement of British requirements in the United States for the first year of war (30th January 1940) was as follows:

	£ millions
Cotton	26
Other materials	22
Food	13
Petroleum	30
General manufactures	25
<i>For Service Departments</i>	
Aircraft	23
Machine tools	43
Munitions	12
Other equipment	3
	81
	<hr/> 197 <hr/>

² See above, p. 54.

main reason for this postponement was convenience of arrangement; but if any further justification were called for, it would be possible to plead the new circumstances, including the new habits of thought, following Britain's departure from the gold standard in 1931. Only two years previously, the Treasury memorandum on *The Course of Prices in a Great War* had given international gold movements a central place in its discussion of external financial policy; but all the documents produced after 1931 started from the assumption of a very different monetary order. After 1931, Britain was no longer subject to any obligation, legal, contractual, or moral, to maintain the pound sterling at any fixed parity with gold, or with the currency unit of any foreign country. Moreover, the control of Britain's normal reserve of gold and foreign exchange, having become a risk which the resources of the Bank of England were not competent to sustain, had passed from the Bank to the Treasury, acting through the Exchange Equalisation Account. Rates of exchange were determined by the prices at which the Exchange Equalisation Account bought and sold currency; they could be altered from day to day, or half a dozen times a day.

More important still were the changes that had taken place between 1914 and 1939 in the basic conditions of British financial strength. When the First World War broke out, the United Kingdom was at the climax of its exporting power. It was moreover still postponing an important part of its claim upon imports: in the decade 1904-1914, unprecedented sums of British capital—which would better have been used, some critics have said, in modernising the industrial structure at home—were invested in the development of overseas economies. Even in the first year of the 1914-18 war, British investors maintained their capital exports to the tune of about £200 millions. But in 1939 the situation was very different. The old staple export industries had for a long time been languishing, and for some years past a net deficit on the international balance of payments had announced that the nation, even in advance of war, was already beginning the process of overseas disinvestment. Moreover, the aggregate sum of past overseas investment was less in 1939 than it had been a generation earlier: if the nation's holdings of gold were larger, its holdings of useful foreign securities were considerably smaller.¹

¹ There is a basis for comparison in the well-known estimate by Sir George Paish (Supplement to *The Statist*, 14th February 1914) and Sir Robert Kindersley's articles in the *Economic Journal* during the nineteen-thirties. The difference in capital value, according to these estimates is about £500 millions. Sir George Paish's estimate of total British capital invested abroad in 1913 was £3,700 millions. Early in 1940, the War Cabinet was given an estimate of £3,240 millions capital value with an income of £185 millions in 1938. An official retrospective estimate of 1945 put the average annual income from overseas investment for the years 1936-38 at £203 millions but gave no figure for total capital value. See Cmd. 6707, Appendix VII. Reference to the qualitative inferiority of British overseas holdings in 1939 is made on p. 115 below.

To cap this dispiriting comparison, there was the plain notice given in the Johnson Act and the Neutrality Act that United States resources would not be made available a second time in support of a British war effort, except upon terms of immediate payment. To earn the means of payment, the British would find themselves compelled to maintain a large flow of exports, thereby diluting the intensity of their war mobilisation, both materially and psychologically—for it would be hard to persuade ordinary people that the workers who were producing luxury frocks for Buenos Aires or fine table linen for New York were serving the nation just as effectively as the workers in the dockyards or the aircraft factories.

In figuring out this not very exhilarating balance-sheet of external financial prospects, the British Government had one consolation: although the resources which it could now command were smaller than in 1914, it could command them more effectively. After one or two false starts, the twentieth-century state had added to its armoury of defensive and offensive weapons the new and formidable engine of exchange control. Its short modern history may be said to have begun in the years of currency disturbance after the First World War, when some states of continental Europe attempted with poor success to compel their subjects to keep their money at home. In the crisis year of 1931 the British Government itself established an ephemeral exchange control, with the purpose of preventing a collapse of the pound sterling following upon the suspension of the gold standard. This mild British control was not seriously tested.¹ Meanwhile, Germany and some other European countries were initiating much more drastic policies. The German Reich under Hitler was pursuing an inflationary employment policy in a country morbidly afraid of inflation; in consequence, it had to block all the escape holes. It established a large and complex administrative machine capable not merely of preventing the flight of capital, but of mobilising for government use all the financial resources accruing externally to German nationals, whether by payment of interest, or sale of exports, or in any other way. It achieved success by inquisitorial and quasi-police action covering every individual transaction in foreign exchange. Would Britain be compelled in time of war to construct the same formidable engine of exchange control? The question was raised by the Bank of England in the summer of 1937, and was discussed between the Bank and the Treasury during the next

¹ The Gold Standard (Amendment) Act of 1931 prohibited purchases of foreign exchange or transfers of funds except in satisfaction of legitimate current requirements, namely: (1) normal trading requirements, (2) pre-existing contracts, (3) reasonable travelling or personal expenses. These restrictions might possibly have prevented a flight from the £ if one had been attempted; but persons with transferable money showed themselves more anxious, at any rate after the first three or four anxious months, to run away from the currencies that remained on gold than from sterling.

eighteen months. The Treasury, while showing a marked distaste for German methods, nevertheless recognised that it would be essential to mobilise and conserve for war purposes the nation's limited and precious resources of gold and foreign exchange. Six months before the war it had ready the following draft regulations, which could be enforced without delay on all residents in the United Kingdom:

1. A regulation making dealings in gold and foreign exchange a monopoly of the Treasury and its authorised agents, and giving power to the Treasury to limit sales to current requirements.
2. A regulation requiring that all gold and all holdings of designated foreign currencies be offered for sale to the Treasury.
3. A regulation prohibiting all payments to residents outside the United Kingdom, except with Treasury permission.
4. A regulation empowering the Treasury to exercise control over all securities marketable abroad, and to call for their registration with a view to their ultimate acquisition by the Treasury.

This network of control, comprehensive though it seems at first sight, contained gaps which did not exist in the German system. Moreover, its administration was not centralised on the German model, but was delegated to the banks, as authorised dealers, acting under detailed Treasury instructions, issued through the Bank of England.¹

The draft regulations for the British exchange control reached their mature form in March 1939, when the Germans occupied Prague; they were promulgated in instalments between 24th August and 3rd September, the day when the United Kingdom declared war.

On the same day the sterling area was given its wartime definition. Neither in September 1939, nor eight years earlier when sterling had separated itself from gold, was the sterling area a new creation: all that happened on both occasions was that a trading and financial partnership already long established took a shape that was more visible to outsiders. The sterling area had grown naturally from the London-centred international market of the nineteenth century, when overseas producers were always able to sell their products for sterling which they could use either to finance their imports from the United Kingdom or to clear their accounts with third parties. Under these circumstances, it was natural for them to hold a considerable

¹ For drastic contemporary criticism see articles by T. Balogh in the *Economic Journal*, March 1940, and *Economica*, August 1940. It should be noted especially that the exchange control did not effectively cover non-resident holders of sterling balances. Hence arose after the outbreak of war the so-called 'black market' in sterling—a misnomer, since dealings abroad between non-residents, at whatever rates, were not an infringement of the law. In these dealings, sterling was not at first at a heavy discount, but by 27th March 1940 it had fallen to \$3.48, in comparison with \$4.03, the official middle rate fixed for the dollar. On 12th May foreign-owned sterling securities were blocked. Balances were still left free, but it was believed that they had been by this time reduced almost to the minimum requirements for existing commitments.

part of their monetary reserves in the form of sterling in London. In September 1939 this was still the qualification for membership, as it had always been. Some foreign countries, such as Egypt, still remained in the sterling area; some Empire countries—notably Canada and Hong Kong—had passed outside it;¹ but, by and large, the sterling area was now co-terminous with the British Commonwealth and Empire. Its wartime definition was in form the result of Treasury action;² but behind this were careful discussions which had started six months previously in response to an Australian initiative. The sterling area rested upon the recognition of common interests and responsibilities by an association of sovereign governments. All the associates engaged themselves to impose within their own jurisdictions an exchange control of the United Kingdom brand. None of them was under any obligation to keep its currency unit in any fixed relation to the British £; what united them all was a common code of practice under which they remained unhampered from exchange control in their mutual transactions with each other, but maintained a united front in all their external dealings. They combined their earning power, pooled their earnings of 'hard' currencies, and entrusted them to the Exchange Equalisation Fund, which held them as the reserve of the entire sterling area and issued to each member the sums that it required to satisfy its own economic needs. The sterling area was in fact a financial union, centred on London and managed by London.

Its existence freed the British Government from a substantial part of its anxieties on the score of 'cash', seeing that a large part of the world, including some countries of great productive efficiency, were willing to guarantee the flow of supplies on terms of deferred payment. No doubt the United Kingdom would pay for these supplies in part by current sales of British goods and services, and by realising British capital assets;³ but for the rest it would be able to borrow the

¹ The reasons for these two omissions, the first by decision of Ottawa, the second by decision of London, were basically the same: namely, the powerful influence of geographical and (still more) economic neighbourhood in North America and Asia respectively. To cite the example of Canada only: fifty-nine per cent. of her visible trade was with the United States, and only thirty-one per cent. with the United Kingdom; American investments in the Dominion were fifty per cent. higher than British investments, while Canadian investments were large in the United States but negligible in the United Kingdom. Under these circumstances, Canada was inevitably led to follow 'an intermediate course between the sterling area and the U.S. dollar'.

² S.R. & O. 1168 of 1939, issued concurrently with the Defence (Finance) Regulations of 3rd September 1939. The Treasury was empowered by the Regulations to issue exemption orders from the prohibition against making payments to residents outside the United Kingdom; in the Order cited, it exempted payments to residents in those countries which held their principal monetary reserves in sterling at London and imposed exchange control similar to that of the United Kingdom.

³ Cmd. 6707 gives for the whole war period the figure of £564 millions for total proceeds of sale or repatriation of British investments in the sterling area (Dominions, £201 millions; India, Burma and Middle East, £348 millions; the rest, £15 millions).

3. SUPPLIES FROM ABROAD

(a) *United Kingdom External Disinvestment*

(as far as recorded: probably an underestimate)

£ million

	Sept.- Dec. 1939	1940	Total Sept. 1939 to June 1945
Realisation of external capital assets	58	164	1,118
Increase in external liabilities ^{1, 2}	80	179	2,879
Decrease or increase (—) in gold and U.S. dollar reserves ^{2, 3} .	57	474	152
Unallocated	17	—6	49
TOTAL	212	811	4,198

NOTE: The figures given in the above table are those given in Cmd. 6707 and are the only ones at present available. The totals given in Cmd. 7099 for the years 1940–1945 are however slightly smaller so that the figures in the table will need slight adjustments throughout.

(b) *Exports of Produce and Manufacture of the United Kingdom*

	Value as recorded £ million		Index of volume 1935=100	
	Including Munitions	Excluding Munitions	Including Munitions	Excluding Munitions
1938 Quarterly average	117.7		98	
1939 4th Quarter	102.8		82	
1940 1st Quarter	119.9		89	
2nd Quarter	129.8		91	
3rd Quarter	93.9		63	
4th Quarter	67.6		44	
1944 Quarterly average	82.1	66.6	38	31

NOTE: (1) The figures up to 1942 do not exclude munitions. In 1940, however, it is reasonable to assume that exports of munitions were very small while in 1944 they were large.

(2) The index of volume is calculated on quantities revalued at 1935 prices and expressed as a percentage of the quarterly average in 1935.

Source: Board of Trade

¹ Comprising banking liabilities less assets, and funds held in the United Kingdom as cover for overseas currencies, etc.

² After deduction of outstanding liabilities to provide gold against sterling liabilities and of liabilities to convert U.S.A. holdings of sterling into dollars on demand.

³ Gold valued at 172s. 3d. per ounce fine and dollars at £1 = \$4.03.

(c) Shipping Gains and Losses

Gains and Losses of British Flag Tonnage 1,600 g.t. and over

(Gross tonnage figures in thousands)

	Gains		Losses		Net Gain + or Loss—	
	Non-Tankers	Tankers	Non-Tankers	Tankers	Non-Tankers	Tankers
1939 Sept.	37	13	106	43	-69	-30
Oct.-Dec.	243	104	274	38	-31	+66
1940 Jan.-March	277	18	262	73	+15	-55
April, May	292	7	149	20	+143	-13
Annual rate for first 9 months of war	1,132	189	1,055	232	+77	-43
Year 1941	1,694	402	2,591	488	-897	-86
Year 1942	1,834	277	3,341	693	-1,507	-416
Year 1943	2,784	273	1,609	217	+1,175	+56

NOTE: (1) It is important to realise that:

(a) Figures of gains are no guide to the post-war shipping position since they include ships due to be returned after the war.

(b) Figures of gains and losses give only the very crudest guide to the shipping position. Carrying capacity per million tons of shipping is equally important but this must necessarily be discussed in the text.

(2) Shipping figures are sometimes in gross tons and sometimes in deadweight tons according to the point under discussion.

Gross tonnage is the sum of space (in cubic feet) of all the various enclosed spaces of a vessel divided by 100. Deadweight tonnage is the number of tons (of 2,240 lb.) of cargo, stores, bunkers (and where necessary passengers) required to bring a ship down from her light line to her load-water-line.

Source: Ministry of Transport

(d) Imports

Imports under Departmental Programmes

(excluding imports from Eire)

Million tons

	Non-tanker imports				Tanker Imports ¹
	Total	Ministry of Food	Ministry of Supply	Munitions and Miscellaneous	
1934-38 Quarterly average	13.75	5.5	6.5	1.75	4.1
1939 4th Quarter	10.3	4.8 ²	5.3	0.3	2.5
1940 1st Quarter	11.3	5.7	5.2	0.3	3.3
2nd Quarter	12.4	6.0	6.1	0.3	3.9
Annual rate of import:					
Oct. 1939-June 1940	45.4	22.0	22.6	1.2	12.9
Imports during year 1941	30.5	14.7	15.0	0.8	13.6
" " " 1942	22.9	10.6	11.5	0.8	10.7
" " " 1943	26.4	11.5	12.8	2.0	15.1

¹ Petroleum products, molasses, unrefined whale oil, industrial alcohol, and, from January 1943, acetone.² Estimated.

Source: Central Statistical Office

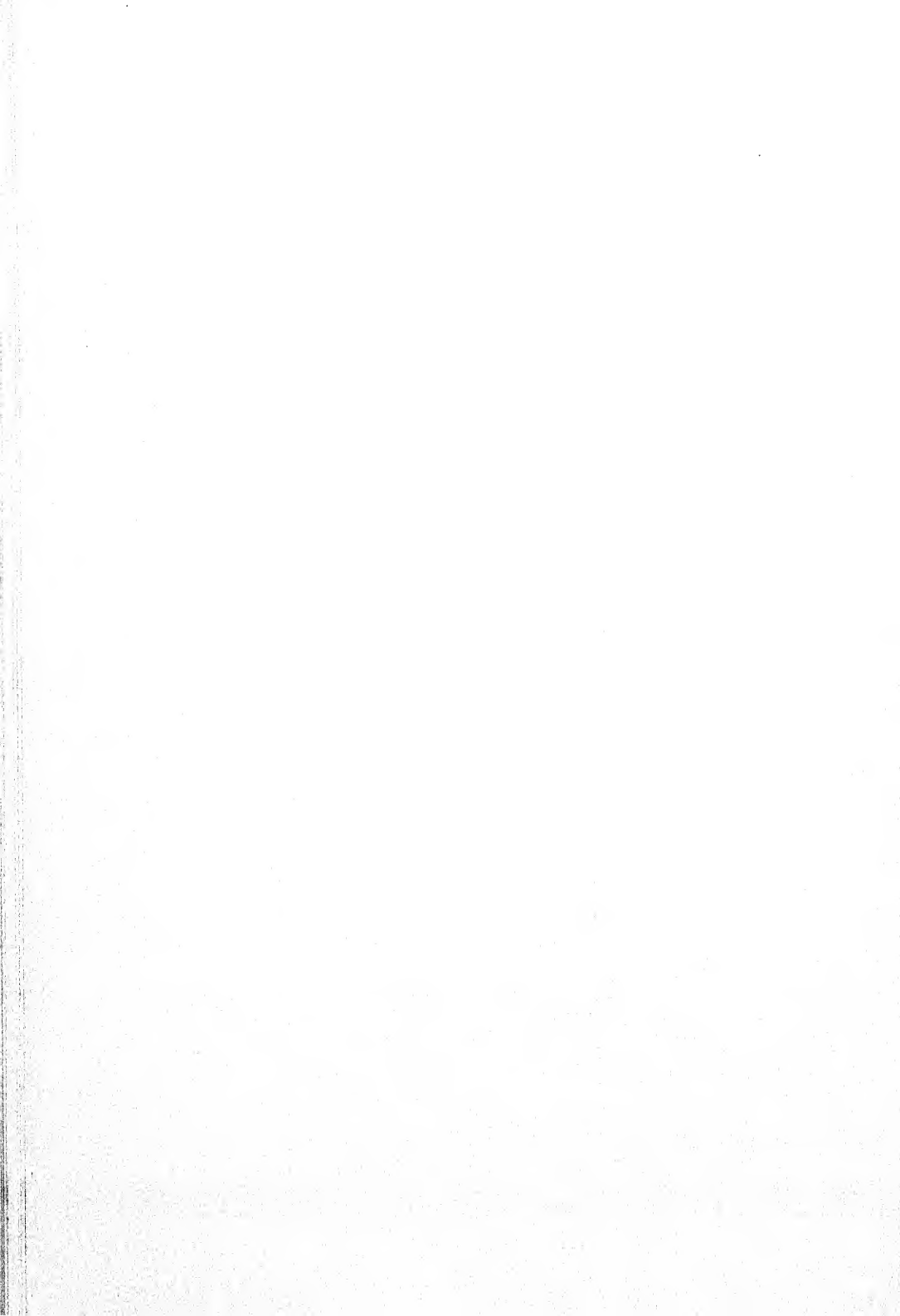
(e) Stocks of Foodstuffs and Raw Materials in the United Kingdom

Million tons

End of month	Food and animal feeding stuffs			Raw materials		Petroleum products	Principal commodities					
	Total	Stocks other than on farms	Stocks on farms	Total ¹	Covered by import programme		Iron- Ore ²	Steel ³	Timber ⁴	Non-ferrous metals ⁵	Wheat	Flour
Beginning of war	10.53	3.74	6.79	13.1	11.8	6.73	2.4	1.0	3.90	0.7	1.03	0.27
1939 December	7.49	3.81	3.68	12.18	10.68	5.78	1.87	0.79	3.44	0.72	0.83	0.31
1940 March	5.52	4.07	1.46	11.03	9.65	5.77	1.76	0.79	2.90	0.67	1.11	0.50
June	5.10	4.92	0.18	11.47	10.05	6.33	2.26	0.78	2.76	0.67	1.40	0.67
1940 December	10.63	5.14	5.49	14.45	12.54	5.36	2.03	1.71	4.11	0.81	1.30	0.70
1941 December	13.39	6.38	7.01	14.67	12.89	7.04	2.12	2.65	2.95	0.88	1.37	0.86

¹ Excluding consumers' stocks of steel.² Including home produced iron-ore at the imported equivalent.³ At producers' works and in British Iron and Steel Corporation stockyards, including material in transit. Consumers' stocks are excluded.⁴ Softwoods, hardwoods, pitwood and constructional plywood.⁵ Copper, zinc, zinc concentrate, lead, tin, nickel, bauxite.

Source: Central Statistical Office



CHAPTER III

ORGANISATION AT THE CENTRE

(i)

Powers of Government

AT LAST the mounting tension of the years and the suspense of the summer months of 1939 were broken. In those first September days, when the Polish cities were already burning, the people of British cities filled their sandbags, erected their Anderson shelters, groped their way nightly in unaccustomed blackness and by day watched the pathetic processions of labelled children moving to the railway stations. On the morning of Sunday, 3rd September, they heard that their Government had declared war against Germany. They listened for the air-raid sirens and the German bombers.

At Westminster, the Government immediately sought from Parliament new additions to the exceptional powers with which it had been vested during the past fortnight. Even in time of war, no British Government can act outside the law. It has to find legal authority for its actions, either under the Common Law, or the Royal Prerogative, or Statute Law. Since the use of the Common Law and the Royal Prerogative is subject to strict limitations, it must secure most of its emergency powers from Acts of Parliament and from the Regulations and Orders made under those Acts.

At the beginning of the First World War, before the intensity of the economic effort and the extent and penetration of administrative control had revealed themselves, the Government's attempts to equip itself with legal powers had been of necessity experimental and hesitant. In November 1914, when it issued the first consolidated code of the Regulations made under the first Defence of the Realm Act, it announced its intention to interfere as little as possible with the ordinary avocations of life and the enjoyment of property. Later on, when necessity compelled it to interfere drastically, it found frequently that its actions were challenged in the courts by contentious and often successful plaintiffs. These undesirable consequences of legal unpreparedness had been taken to heart: so much so, that among all the multifarious plans for war, the preparations of war

legislation became perhaps the most thorough and complete. Study of the emergency powers that would be required in a future war had begun in 1924. By July 1937 the Committee of Imperial Defence had approved a draft Defence Bill and a comprehensive draft code of Defence Regulations. It had in addition marked out a considerable number of special subjects to be dealt with by separate legislation. Thus, two years before the Second World War broke out, the foundations of the necessary powers were in firm shape.

However, there still remained a good deal of detail to fill in. The draft Defence Bill and Regulations had also to be kept up to date and additional emergency legislation had to be drafted and co-ordinated.¹ Moreover, as crisis succeeded crisis—Vienna, Munich, Prague—the problem of timing became critical. Should the Defence Bill be introduced in advance of the emergency? Should it be introduced at the onset of emergency, but before the outbreak of war? Or should it be held back until hostilities had actually started? And how should the issue of Defence Regulations be spaced? Which ones should be issued before the onset of emergency, which ones before the outbreak of war? Which ones should be held back until war was declared?² The pros and cons of these questions were much discussed; but it was considered that final decisions must depend upon the precise circumstances of the emergency and of the transition from a state of emergency to a state of war. In April 1939, the Cabinet agreed to get the Defence Bill passed through Parliament at the beginning of the emergency, when many precautionary measures, such as civilian evacuation, would be set in hand. It also agreed to rearrange the main code of Regulations into two sub-codes according to their suitability for issue before or after war broke out.

At last the moment came. On 22nd August the Cabinet decided to introduce the Defence Bill and request its passage in a single day. On 24th August the Bill became law as the Emergency Powers (Defence) Act 1939.³ It was purely an enabling Act, empowering His Majesty by Order in Council to make such regulations as appeared necessary or expedient for securing the public safety, the defence of the Realm, the maintenance of public order, the efficient prosecution of any war in which His Majesty might be engaged and the maintenance of the supplies and services essential to the life of the community. It specified six particular purposes for which regulations might be made—the punishment of offences against the regulations, the detention of persons in the interests of public safety

¹ Some forty draft Bills were prepared in the next two years.

² For illustration, see the account in section ii of Chapter IV of the institution of exchange control. The delay in imposing it cost perhaps some £200 millions; some of the horses had got out before the stable door was shut.

³ 2 & 3 Geo. 6, c. 62.

or the defence of the Realm, the possession or control of any property, other than land, entry into any premises, and the amendment, suspension or application of any other Acts. In this lavish delegation of its authority, Parliament included also a wide power of further delegation: Defence Regulations could empower such authorities as they specified, to make orders, rules and bye-laws; while these 'third generation' orders might in their turn beget a further brood of directions and general licences.

Nevertheless, the Government evidently desired to set a limit to the things that could be done under authority derived directly or indirectly from the Defence Act. During the opening weeks of the war it invited Parliament to pass some sixty additional Statutes. There were some legal gaps to be filled; the powers specified in the Defence Act did not, for example, authorise the imposition of taxation nor the general expenditure of public money, nor alterations in peace-time public services and the administration of justice. There were some other things that might legally have been done by regulation under the Defence Act, but were for political reasons more prudently done by special legislation after full parliamentary discussion. Property compensation was one such thing, military conscription was another. As for industrial conscription, the Government was not as yet ready to ask for it, nor the trade unions to permit it, either under the Defence Act or in any other way.

Apart from these deliberate omissions, the Government secured from the Defence Act of 1939 as much power as it then needed to legislate by subordinate instruments. In the crisis of 1940 it sought and obtained from Parliament two further Emergency Powers Acts. There is an instructive contrast in the legislative history of these two Acts. The first was very short.¹ It declared simply that all persons might be called upon to place 'themselves, their services and their property' at the disposal of His Majesty. This assertion of a limitless power of conscription was in part a gesture to the times, since the Act of 1939 had already given to the Government complete powers over property;² but in part it was far more than a gesture, since it introduced something new and important—industrial conscription. It passed through all its stages in one hectic day. The second Act, which was also short, was debated for three days in the Commons and two days in the Lords.³ Its purpose was to provide in the event of 'actual or immediately apprehended enemy action' a system of special war zone courts in place of the ordinary centralised system of

¹ 3 & 4. Geo. 6, c. 20. H. of C. Deb., Vol. 361, Cols. 154-185, 22nd May 1940.

² Control over industry was in fact exercised throughout the war by regulations under the 1939 Defence Act.

³ 3 & 4. Geo. 6, c. 45. H. of C. Deb., Vol. 363, Cols. 65-146, 702-758, 831-905. H. of L. Deb., Vol. 117, Cols. 3-40, 57-72, July 1940.

criminal law. The need to invoke this Act never arose; but its stormy passage through a Parliament that had agreed almost without debate to the conscription of life and property is a fact of great historical significance. At a time of intense national danger and unlimited national resolution, Parliament was moved profoundly by the fear of domestic encroachments upon those civil liberties which foreign enemies were threatening with complete overthrow.

The present narrative is not a constitutional history of the United Kingdom at war; nor can it discuss those deeper themes of political philosophy that are implicit in the war-time tension between authority and liberty. Nevertheless, there may be some profit in looking briefly backward and forward from the summer of 1940, in order to identify some of the main issues.

Judging from the evidence of the Statute Book, of the volumes of Defence Regulations and of Statutory Rules and Orders, it would at first sight appear that the powers which Parliament surrendered to the Government for the purpose of defending national freedom left in being very few of those concrete individual freedoms for which Parliaments of earlier centuries had struggled so steadfastly. In some fields, the planners of legal preparedness had hoped to mitigate government encroachments upon civil liberties; they had for example earmarked for last-minute scrutiny and decision by ministers the Home Secretary's power to detain persons upon suspicion. In the hectic days of August 1939 the opportunity for this last-minute scrutiny was never found. In other fields the wide powers claimed on the Government's behalf simply reflected the incompleteness of detailed planning. Industrial plans, for example, were in September 1939 still in a very elementary stage; yet Defence Regulation 55 made provision for the most comprehensive and stringent control over industry. The Government preferred to run the risk of asking for too much power rather than discover later that it possessed too little. In general, its memory of the embarrassments of the previous war and its anticipation of stress in the coming one moved it to close every legal loophole and to secure the fullest power to cover every contingency that might arise. Such loopholes as were still left open by the Defence Act of 1939 were effectively closed on 22nd May 1940.

But did the Government hold and exercise its emergency powers unconditionally? After May 1940 the surrender of the liberties of economic classes in the interests of national war-making power was never seriously challenged;¹ but Parliament showed a steady disposition to criticise, and where necessary to curb governmental

¹ Two years of war passed before a motion was moved in the House of Commons to annul a Regulation for the control of industry. H. of C. Deb. Vol. 373, Cols. 2050-64 (6th August 1941).

interferences with individual liberties. The most effective check upon unnecessary or excessive interferences did not come from the judges; it came from the M.P.s.¹ The absence of guaranteed rights in the British constitution meant that extraordinary powers, provided they derived from Act of Parliament, could not be challenged in the courts on grounds of *ultra vires*; moreover, since Parliament had entrusted to the Government complete discretion about what was 'necessary' or 'expedient', judicial control was virtually confined to questions of interpretation.² But Parliament still retained its ultimate political control over the executive; it could, and, in 1940, it did force out of office a Government in which it had lost confidence. From a Government to which it gave its confidence without stint it still demanded proofs of efficiency, equity and restraint in the use of emergency power. Apart from its stubborn questioning of the war zone courts, it had granted willingly and even enthusiastically the enabling powers of the Defence Acts, and it accepted without demur most of the Regulations made under these Acts. But against some Regulations it concentrated heavy fire—most notably against the powers to suspend Habeas Corpus, to control propaganda and establish press censorship, to prevent attempts at spreading disaffection in the Services and to suppress without warning any newspaper which systematically published matter 'calculated to foment opposition to the successful prosecution of the war'.³ Its criticism was not in vain; for sometimes it moved the Government to modify Regulations, and always it inculcated a salutary moderation in the administration of the more distasteful ones, such as those that gave the Government power to detain persons on suspicion and to suppress newspapers. Moreover, the House of Commons showed an increasing anxiety to extend its effective control over Regulations to cover those multitudinous rules and orders which departments were by Regulation empowered to make. Parliamentary procedure,⁴ combined with the sheer bulk of the orders, made effective scrutiny very difficult. Nevertheless, continued parliamentary pressure did secure greater uniformity of procedure among the departments issuing this subordinate legislation; it secured also greater care in drafting, and the

¹ For a discussion of safeguards, see *Concerning English Administrative Law* by Sir C. T. Carr. (O.U.P. 1941).

² The most famous legal cases were those which arose under Reg. 18b by which the Home Secretary could intern anyone whom he had 'reasonable cause to believe' came within one of the specified categories of suspects. In *Liversidge v. Anderson*, [1942] A.C.206, and *Greeve v. Secretary of State for Home Affairs*, [1942] A.C.284, the House of Lords decided that the courts could not inquire into the reasonableness of the belief which led to the making of a detention order; the matter was one for executive decision.

³ H. of C. Deb. Vol. 352, Cols. 1829-1902 (31st October 1939); Vol. 363, Cols. 1307-48.

⁴ Defence Regulations had to be laid before Parliament and either House could resolve in favour of a prayer for their amendment. The only ways of criticising rules and orders were a formal motion of censure or a debate on the adjournment.

publication of explanatory notes for the purpose of making difficult orders more easily comprehensible. Finally, it led in 1944 to the establishment of a Select Committee to scrutinise rules and orders as they were issued.¹

In its organisation of the country's war effort, the British Government was never hampered by insufficiency of legal powers; but it held these powers subject to good behaviour, as a trust bestowed upon it by Parliament and people for a specific purpose within the specific period of emergency. If Mussolini, who prided himself on his knowledge of Machiavelli, had read his favourite author more carefully, he would not have been so much taken in by his own catch-cry of 'decadent democracy'. The enduring advantages of efficiency did not lie with those nations which had governments permanently immune from constitutional criticism.²

(ii)

Mechanism of Government

Most historians of British responsible government have attuned their story to the theme of liberty. It might with equal appropriateness be attuned to the theme of efficiency: indeed, the inspired constitutional historian, if ever he arises, will combine both themes in harmony. The personal responsibility of ministers and the collective responsibility of the Cabinet supply strong inducements for cleaning up all those inefficiencies that inevitably from time to time find lodgment in the complicated government structure. At the beginning of a great war, the ramifications of that structure and its ponderous bulk increase with immense rapidity. The switch over of the machinery of government from peace to war is no less difficult a task than the switch over of factory equipment, or the transformation of civilians into soldiers. If the task is mishandled, civilians will go short of food and armies of weapons, campaigns will be lost, the will to win them will waver.

As has been seen in an earlier chapter, the Committee of Imperial Defence had given much thought to the problems of government organisation in time of war. There was, to begin with, the problem of constituting new ministries or reconstituting old ones. The Government had begun to attack this problem even before war broke

¹ H. of C. Deb., Vol. 389, Cols. 1646-1694; Vol. 386, Cols. 149-180; Vol. 400, Cols. 202-99.

² On this theme there will be room for an important book when the British war histories are completed and the German evidence more deeply studied.

out. In the spring of 1939, the small but comparatively efficient Food (Defence Plans) Department had been freed from the apron strings of the Board of Trade and given independent status under a Minister;¹ in the summer, the Ministry of Supply was constituted and the Ministry of Labour vested with National Service functions.² Moreover, plans had been written in the War Book for the Government to introduce swiftly a Bill enabling the establishment of new war-time ministries, and then to set up Ministries of Home Security, Economic Warfare, Information, Food, Shipping. On 1st September 1939, the Bill passed through all stages into law³ and ministers were shortly afterwards appointed to all the new offices.⁴ Before France fell, another new Ministry—that of Aircraft Production—had been created.⁵ All the new ministries with economic functions to perform found themselves faced with common problems of organisation. If they were to exercise detailed control over the trades and industries entrusted to their oversight they had to expand their staffs with great rapidity; but they could find in the civil service neither the numbers nor the expert knowledge requisite for their efficiency. They therefore reinforced their administrative strength with academic persons whose names were on the National Register and built up their industrial controls chiefly with business men who had experience in the industries now subjected to control. This partnership of civil servant, don and business man turned out to be one of the most interesting and fruitful administrative experiments of the war: its history, in each significant sphere of economic management, will be told in the appropriate volumes of this series. In the present volume, the problems of government organisation can be considered only from a central point of view, and even then only briefly.

The more widely functions were diffused among departments, the more necessary it became to institute efficient machinery for knitting them together into one coherent policy for winning the war. The Ministries of Supply and Economic Warfare had to serve the needs of strategy. The Ministry of Labour had to produce men for the Ministry of Supply's contracts and for the Forces themselves. The Ministry of Food's actions were heavily influenced by the policy of

¹ The Minister was the Chancellor of the Duchy of Lancaster.

² See Part I, Chapter II, p. 58. Throughout this book the Ministry of Labour and National Service, as it became on 8th September 1939, is called, for brevity, the Ministry of Labour.

³ H. of C. Deb., Vol. 351, Cols. 212-215.

⁴ The Ministry of Economic Warfare was set up by S.R. & O. (1939) No. 1188, the Ministry of Food by S.R. & O. (1939) No. 1119, the Ministry of Home Security by S.R. & O. (1939) No. 1142, the Ministry of Information by S.R. & O. (1939) No. 1189, the Ministry of National Service by S.R. & O. (1939) No. 1118 and the Ministry of Shipping by S.R. & O. (1939) No. 1425. The Minister of Shipping was appointed in October, the other Ministers in September.

⁵ Set up under S.R. & O. (1940) No. 747, 17th May 1940.

the Ministry of Shipping. The list could go on indefinitely; for all the strands of home and economic policy were intertwined, and economics and strategy were themselves inextricably mingled.

The responsibility for infusing unity of purpose into all the dispersed activities of government rested squarely on the War Cabinet. In the War Book it had been laid down that the final choice between different models of the 'Organ of Supreme Control' must be made by the Prime Minister in power when the emergency arose;¹ but there never was any real doubt that the only practical course in a great war would be to establish immediately a War Cabinet with supreme power. Accordingly, on 1st September 1939, Mr. Neville Chamberlain informed the Cabinet that if war came he would immediately set up a War Cabinet on the 1916-19 model. He did so on the first day of war. The Cabinet resigned, the Committee of Imperial Defence died, the War Cabinet held its first meeting. Its members were the Prime Minister, the Chancellor of the Exchequer, the Minister for Co-ordination of Defence, the Lord Privy Seal, the Foreign Secretary, the First Lord of the Admiralty, the Secretaries of State for War and for Air, and the Minister without Portfolio.²

There had been between the two wars a good deal of academic discussion about the principle on which Mr. Lloyd George's War Cabinet had been constructed. Most writers had ascribed its virtues to its limitation in size to five or six members and these members' freedom from departmental duties. The Committee of Imperial Defence had itself envisaged for any great war of the future a War Cabinet of this kind. But the War Cabinet set up in September 1939 had nine members, five of whom had to carry heavy departmental responsibilities. The theorists of government were in consequence inclined to lament what they considered a departure from true principles. They forgot that the making of a government is a delicate operation in which personalities count as much as the design of a machine. They over-estimated the contrasts, they under-estimated the identities and similarities between the War Cabinets of the two twentieth-century wars. By peace-time standards, the War Cabinet set up in September 1939 was, like its predecessor, very small, and its proportion of non-departmental ministers was large. Again like its predecessor, it did not confine its meetings to its own members, but called in other ministers when it thought their attendance necessary: indeed, it summoned the Minister of Home Security³ and the Secretary of State for Dominion Affairs to practically all the meetings held

¹ See Part I, Chapter II, p. 46.

² Respectively, Mr. Chamberlain, Sir John Simon, Lord Chatfield, Sir Samuel Hoare, Lord Halifax, Mr. Churchill, Mr. Hore Belisha, Sir Kingsley Wood, Lord Hankey.

³ This office was always combined with that of Home Secretary.

between September 1939 and May 1940. It also regularly summoned the Permanent Secretary to the Treasury and one or other of the Chiefs of Staff, or their deputies. Its meetings in this period were usually about fifteen strong—about half the size of a normal pre-war Cabinet and very manageable compared with the 'bear garden' atmosphere which was said to have characterised some War Cabinet meetings during the First World War.

In the autumn of 1939 the War Cabinet met once, or sometimes twice daily; but in the winter of 1939-40 it discontinued its Sunday meetings, limited its Saturday meetings to specially urgent business and arranged them on a rota system. Not until the invasion of Norway did it resume full meetings for each day of the week. Even so, it cumbered itself in this first period of the war with rather too much detail. It could not, of course, devolve upon the Chiefs of Staff or any other body the responsibilities of high political decision, but it involved itself perhaps more widely than it need have done in matters which departments might have been left to settle: for example, some of the smaller details of food rationing or the handling of Army petrol. Not that it ignored the advantages of decentralisation: on the contrary, it authorised some sixty War Cabinet committees, of which about two-thirds were inter-departmental, non-ministerial bodies. The number seems impressive, but mere number is no guide. Fewer committees might possibly have done more competent work.

The military committees had their shortcomings, but, unlike the civil committees, they could at least build upon a firm basis of proved experience; the Chiefs of Staff Committee and its sub-committees for Joint Planning and Joint Intelligence¹ were already in existence. It was felt, however, that a ministerial committee was also needed, to provide for the regular exchange of views between the ministers primarily responsible for defence and the Chiefs of Staff, to save the War Cabinet's time by giving preliminary consideration to complicated reports from the Chiefs of Staff, and to serve as a clearing house for the discussion of new strategical ideas. At the end of October 1939, therefore, the Ministerial Committee on Military Co-ordination (the M.C.C.) was established,² with terms of reference so wide that, as one authority pointed out, 'an almost infinite variety of grist could be brought to its mill'. Grist came in plentifully, both from the side of supply and that of operations. By the time of the Norwegian campaign the M.C.C. had fitted itself reasonably well into the chain of command. It did not, however, establish itself as a permanent institution of war government. Some people doubted whether the same body

¹ A Deputy Chiefs of Staff Sub-Committee also existed.

² Consisting of the Minister for the Co-ordination of Defence (Chairman) and the three Service Ministers. The Chiefs of Staff were advisers.

could handle effectively both supply and strategy.¹ There was moreover difficulty in finding the appropriate chairman. The office of the Minister for Co-ordination of Defence had been established in 1936 for peace-time duties with the Committee of Imperial Defence; in time of war the Minister had no clearly defined functions. The War Cabinet was the real co-ordinator, and no one but the Prime Minister could be its effective spokesman on defence policy. In April 1940 the office of Minister for Co-ordination of Defence lapsed, and Mr. Churchill, as First Lord of the Admiralty, assumed the chairmanship of the M.C.C.; but even he requested the Prime Minister to take the chair when exceptionally important matters were discussed.² The last reorganisation of the M.C.C., on 1st May 1940, provided that the Prime Minister would preside whenever possible, and in his absence the First Lord.

Ten days later, Mr. Churchill became not only Prime Minister but also Minister of Defence. While retaining the Chiefs of Staff machinery he set up to assist him a Defence Committee (Operations) and a Defence Committee (Supply), both infinitely flexible bodies. This arrangement was challenged later on, at times when the war was going badly; but it endured to the end of the war.

On the civil side the need for an efficient mechanism was if anything greater; for whereas the Service Ministers were all members of the War Cabinet, the majority of civil departments were unrepresented in it. If therefore the separate activities of these departments were to be effectively and continuously focused upon the main objectives of war policy, the War Cabinet must establish bodies vested by devolution with substantial authority. But there did not exist on the civil side the same firm foundation of peace-time organisation; nor had the Committee of Imperial Defence devoted much time to planning the structure of civil committees. In the little that was said or written about this subject after Munich, two committees had been contemplated—a Home Security Committee, and a Home Affairs Committee which would concern itself with ‘all domestic affairs’. When war came a third committee—the Ministerial Priority Committee—was set up to supervise the allocation of productive resources.³

The Ministerial Priority Committee and, still more, the Home Affairs Committee were prolific parents of sub-committees.⁴ Yet there

¹ In the Committee's twenty meetings between 8th April and 6th May, there was no discussion of supply.

² H. of C. Deb., Vol. 359, Cols. 699–700.

³ At the same time the other two committees were renamed respectively the Civil Defence Committee and the Home Policy Committee.

⁴ One of these, the Food Policy Committee, soon achieved independent status as a committee of the War Cabinet.

remained apparently an important gap to be filled; for in October 1939 the Prime Minister and the Chancellor of the Exchequer decided to appoint an inter-departmental committee 'in order to keep under review and to co-ordinate the functioning of the departments in relation to the economic effort of the country as a whole and to make any necessary arrangements for Anglo-French economic co-operation'. Lord Stamp was to preside over this committee, which indeed was expressly intended to continue and expand the work of the Stamp Survey.¹ However, two days later, a Ministerial Committee on Economic Policy was constituted above Lord Stamp's committee of officials—the first example of a 'two-decker' committee structure which was soon imitated in the sphere of food policy and elsewhere.

The pattern of organisation was complicated and for some time there was much uncertainty about the boundaries of jurisdiction. Frequently they came to be drawn along lines that had not been foreseen. For example, the Home Policy Committee failed to establish itself as the authority exercising effective oversight of 'all domestic affairs'. On the other hand, the Economic Policy Committee quickly achieved a position of importance. Here a clear thread of continuity could be traced with the pre-war methods of economic co-ordination. The Treasury still held the key positions. No doubt this was due in part to the personal position of the Chancellor of the Exchequer (Sir John Simon) and his Permanent Secretary (Sir Horace Wilson) in the counsels of the Prime Minister. The Chancellor, alone among the ministers concerned with economic affairs, had a seat in the War Cabinet; he was also chairman of the Ministerial Economic Policy Committee and the political supervisor of Lord Stamp's work. The Permanent Secretary to the Treasury was chairman at the official level of both the Economic Policy and the Food Policy sub-committees.

This balance in the composition and leadership of the civil committees was reflected in their deliberations: the economic effort of war was commonly assessed in terms of finance rather than of physical resources. Much study was given to the problems of foreign exchange and domestic inflation but less to the problems of industrial production and of the mobilisation of shipping, manpower and raw materials. Shipping, indeed, slipped through the hands of all the committees and was in the end dealt with by a special review of import problems by the Lord Privy Seal.

These limitations of central economic control were perhaps aggravated by the absence at that time of adequate machinery for the collection of economic information. However, a beginning was made

¹ See p. 47 above.

by the establishment of a Central Economic Service in November 1939. It was a small beginning—nothing more than the engagement of one or two additional economic experts to assist Lord Stamp—but from it grew later the Economic Section of the Offices of the War Cabinet and the Central Statistical Office.

Fundamentally, however, it was not in the mere assembly of economic data, but in the approach to the data and the handling of it that the War Cabinet in this first period of the struggle differed from the new War Cabinet which took power in May 1940. Before May 1940 the Government thought of 'financial and economic plans' and put the accent on the first word. The new Government shifted the order of words and put 'economic' in front of 'financial'. It continued and indeed carried further its predecessor's anti-inflation policy; nor did it despise budgetary arithmetic; but it shifted the emphasis of planning to the simpler arithmetic of import programmes and stocks and the supply of skilled engineers. The new attitude announced itself emphatically in the composition of the new War Cabinet. Sir Kingsley Wood, who succeeded Lord Simon as Chancellor of the Exchequer, was given neither the chairmanship of the Economic Policy Committee nor a seat in the War Cabinet; but there was a strong representation in the War Cabinet of ministers who, then or later, were charged with the main burden of mobilising and allocating the nation's physical resources—Mr. Bevin, Minister of Labour and National Service; Mr. Arthur Greenwood, Minister without Portfolio and chairman both of the Economic Policy Committee and the newly-established Production Council; Mr. Attlee, who was appointed Lord Privy Seal and chairman both of the Home Policy Committee and the Food Policy Committee. Mr. Neville Chamberlain for the few months before his death acted as Lord President of the Council—an office destined to achieve pre-eminence in guiding and governing the nation's economic energies.

A good deal of experiment had still to be made, both with personalities and mechanism, before the new Government found itself smoothly in gear with its economic task. The task would soon be defining itself in new ways as unemployed resources were absorbed and scarcity became the chronic condition in all sectors of the national economy. When that happened, the need would be much more urgent than it had been in the first period of the war to establish at the centre of government an efficient mechanism of economic control.

But in the summer of 1940 it was the new motive power, not the new mechanism, that mattered most. Unity of spirit between Government, Parliament and people proclaimed a new day of realism and relentless will to victory. In the War Cabinet papers produced during the first eight months of the war, as in the columns of Hansard and

necessary sums in the form of the sterling balances accumulating in London.... By the end of the war, these balances had accumulated to the tune of £2,723 millions.¹

Between the countries of the sterling area, which offered to Britain extensive financial accommodation, and the United States of America, which offered her no financial accommodation at all, there emerged an intermediate group of countries which, on calculation of their own interest, were willing to make specific payments agreements with the United Kingdom. Of course, not all the payments agreements concluded in the opening months of war were prompted on the British side by strict considerations of supply: some of them served the purposes of economic warfare, and were concluded mainly with the intention of denying supplies to Germany. There were in addition two exceptional agreements which were based on full partnership in the war, one with France, the other with Canada. The first will be discussed in a later chapter: of the second it is sufficient to say here that it manifested the determination of the Dominion, though not a member of the sterling area, to allow no financial impediments to thwart the maximum contribution of Canadian agriculture and Canadian industry to the war effort of the British Commonwealth. No overriding purpose of this nature was to be expected from neutral governments. However, on 27th October 1939, the British Government made a very encouraging payments agreement with Argentina, a country which had great importance as a supplier of food. This agreement was later on amended, and became the model of similar agreements with the governments of other neutral countries. Its broad effect was to enable the British Government to continue importing without making immediate payment. The sums accruing to Argentine exporters were paid into a special account in the Bank of England on behalf of the Argentine Banco Central, with a guarantee that they would be available later on at gold value. The neutral Argentinians had thus shown themselves ready, like the members of the sterling area, to lend their resources to the belligerent British: or—to state the situation in reverse—the British had succeeded in softening a currency which they had originally reckoned as ‘hard’.

The ‘hard’ currencies had been selected as those eligible for inclusion in the reserve held by the Exchange Equalisation Fund. The first list designated United States and Canadian dollars, Argentinian pesos, Swiss, French and Belgian francs, Swedish and Norwegian kroners, and Dutch guilders. Generally speaking, these

¹ *Op. cit.* Appendix IV. It should be noted that only the smaller part of this immense total of sterling debt was incurred for overseas resources supplied to the United Kingdom: no less than £1,732 millions represented the United Kingdom's efforts in the defence of India, Burma, Egypt and the Middle East.

were the currencies that were hardest to come by under the conditions of trade and abnormal overseas expenditure that attended the outbreak of war. Even under peace conditions, United States dollars had not been easily earned.¹ They now became the hard currency *par excellence*. The problem of foreign exchange was, above all, an American problem.

Almost from the outset of the war, the British Government found itself compelled to review mistrustfully its earlier hopeful plans for keeping its dollar purchases within narrow bounds. As will be seen later, unanticipated shipping difficulties, aggravated in some cases by delays in instituting consumer rationing, compelled it to pay out dollars for supplies it had intended to procure from more distant, but more accommodating countries within the sterling area. More significant still was the steep rise in the requirements upon America for fulfilment of the British munitions programmes. Steel was 'pre-eminently the basic raw material of warfare'; but, since the capacity of the British steel industry was below the requirements of the newly-expanded British war plans, there existed a growing deficiency which would have to be made good by heavy imports from America. There would, moreover, be a sizable bill to pay for machine tools, petroleum products (though the tankers would so far as possible be sent to the Middle East) and some other commodities.² For these reasons and because of the rise of prices,³ the United Kingdom's dollar commitments began to mount up, even before the British Government saw any need for giving big orders to American armament firms, and long before it saw any prospect of America coming into action as the arsenal of democracy—and its granary.

During the early months of war, the War Cabinet returned frequently to reckonings of the available 'cash', and the available means of husbanding it. To take the savings first: if indispensable imports were to be secured, it was necessary to prune rigorously those dispensable imports that were a charge upon the nation's limited resources of foreign exchange. In Germany there had been established both a direct control over imports and a direct control over the foreign exchange required to pay for them. In the United Kingdom, on the other hand, the operation of exchange control had been decentralised among the banks. They could not pretend to any exact knowledge of the Government's import policy and could not therefore take responsibility for granting or refusing exchange to their individual

¹ cf. *The United States in the World Economy*, a study of the U.S. balance of payments between the wars issued by the U.S. Department of Commerce in 1944.

² See note on p. 106 above.

³ See below, pp. 154.

clients. In consequence, the British Government decided to adopt measures based on the scrutiny of different classes of imports. These measures were broadly of two kinds, adapted respectively to the requirements of government departments and those of private commercial importers. The demands of the importing departments for foreign exchange were met by the Treasury, after they had been scrutinised by the Exchange Requirements Committee, a body set up on 29th August 1939 with representatives from all the importing departments, the Treasury, and the Bank of England. The demands of private importers were controlled by the Import Licensing Department of the Board of Trade.

There was nothing amiss in this mechanism of import control; but there was for many months a good deal lacking in the vigour of its operation. In the first place, there remained throughout the first war winter an unoccupied no-man's land between the territories of the Exchange Requirements Committee and the Import Licensing Department. 'Miscellaneous and unallocated' imports which no government department sponsored and which the Board of Trade had not as yet brought under licence were valued in November at £120 millions, out of a total import programme of about £920 millions¹—a ratio which was not substantially reduced until March, when the Ministry of Food and the Board of Trade made an agreement whereby the former undertook to sponsor a long list of privately imported foods and the latter put them under licence. But, in the second place, the licensing system was not in this period particularly drastic within the sphere of its operation. The Import Licensing Department had started work with a short list of commodities which included textiles, apparel, pottery, cutlery, cars, a few luxury foodstuffs, and some assorted manufactures.² Very few of the items on this list were completely prohibited; under most heads importers were given a ration on the basis of their past trade. It was of course understood from the beginning that the list of licensed commodities would be extended, and the ration made more niggardly, if and when the need for more drastic action were demonstrated; but genuinely drastic action was

¹ The November programme (or rather estimate, since genuine programming of imports had not as yet been developed) was as follows:—

	£ million
Total Imports	924
Imports, Ministry of Food and Ministry of Supply Controls	631
Imports under Import Licensing or soon to be brought under it	104
Films and tobacco, which were subject to special arrangements	69
Uncontrolled imports	120

² S.R. & O., 1939, No. 1054, and following Orders.

postponed until 4th June 1940¹. By that time the mechanism of import licensing, which hitherto had been intended and employed for the saving of foreign exchange, was being geared to the additional purpose of economising shipping. In the end, it was the shortage of shipping, far more than the shortage of hard currencies, which was the spur towards a tightening of import control, not only in the spheres which have already been mentioned, but in the third and most important sphere, that of direct departmental procurement. Private commercial imports had been by far the smaller part of the total even in the early months of the war; in the mature war economy they were destined to take a rigorously diminished place. However, the assumption by the great importing departments of direct responsibility for the main bulk of overseas supplies did not by itself bring into being an economical, realistic and genuinely national import programme, from which all unessential items were pruned and in which all the essential ones were scientifically balanced in relation to the nation's war needs. As will later appear, that goal was achieved slowly and painfully.

Throughout the period of the Anglo-French alliance, the mechanisms that had been established for controlling imports did not prevent a serious leakage of the nation's precious store of foreign exchange upon purchases which were, in the circumstances of the time, luxurious. But, even if all unnecessary imports had been promptly and efficiently stopped, the mounting cost of absolutely indispensable imports would still have been alarming. To begin with, the depreciation of the exchange rate of sterling on the eve of the war had raised by approximately one fifth the sterling price of all imports from the United States. On top of this, the early months of war brought difficulties of supply and transport which raised import prices still further.² Meanwhile, the claims of the British war economy upon hard currency were expanding even beyond the requirements of materials and tools that have been already described. It had been the original intention of the British Government not to deplete its store of American dollars by the purchase of finished munitions; but a day came when the French Prime Minister declared at a meeting of the Supreme War Council that he would be ready to sell all the pictures in the Louvre if they would procure American aircraft for France. Despite their misgivings about finance, the British felt obliged to join the French in spending dollars to build up the capacity of the American aircraft industry. Against these soaring commitments, there was as yet no adequate balancing force on the

¹ S.R. & O., 1940, No. 873. By this Order import licensing was made to cover all commodities and was extended to sterling area countries.

² See Chapter VI, Section (i).

dollar-earning side of the account. By index of volume British exports in the third quarterly period of the war were still seven points below the quarterly average for 1938; import prices, moreover, had risen much higher than export prices¹. Simultaneously, net current earnings from other sources were being engulfed by war needs; the balance on shipping services, for example, was being upset by the overriding claims of the war upon British-owned tonnage and the need to hire neutral tonnage, even at extravagant rates.²

Contemporary statistical analysis of the balance of payments situation, both for the United Kingdom and the whole sterling area, had many shortcomings; but two calculations that were made early in 1940 are worth quoting. Lord Stamp calculated that the total adverse balance of the United Kingdom in the first year of war (later years would be worse) was likely to approach, perhaps even to exceed, £400 millions. According to a Treasury estimate prepared about the same time, the sterling area as a whole was likely to have an adverse balance on current account of approximately the same figure—£400 millions. These estimates made the British war effort, when envisaged in terms of external finance, seem pretty hopeless; for both Lord Stamp and the Treasury had concluded, after their separate investigations, that the United Kingdom could not in a three years' war afford to expend more than £150 millions a year from its reserves of gold and foreign exchange, with perhaps an additional £70 or £80 millions a year from the sums realised by the sale of British-owned securities abroad.

A conclusion of such deep pessimism might seem at first sight surprising. The total capital value of British external investments was usually reckoned to be above £3,000 millions. But the distribution and the quality of these investments had to be taken into account. More than half of them were located in sterling area countries, where payments difficulties did not arise; to transfer them to American buyers would be a long and difficult process, even if the buyers should be in the end forthcoming. As for the British investments in America itself, the Johnson Act ruled out the possibility of raising money on them as security. But could not some of them be sold outright? That was, indeed, British policy; but the only investments that could be realised quickly and economically were listed securities denominated in American currency and enjoying a free market. Other securities, inside the United States or outside it, might in time be transferred to American ownership: but any attempt to rush the job was likely to result in knock-down prices—fewer dollars for more securities, and therefore a loss rather than a

¹ See Statistical Tables 3(b) and I(e) on pp. 79 and 77.

² See Section (iii) of this chapter.

gain to the British war effort.¹ For all these reasons, the total to be expected from the requisitioning of British securities marketable abroad was expected to be no higher than £200 or £250 millions. Add to that gold reserves estimated at £450 millions, and—'The sum total of our resources', the Chancellor of the Exchequer concluded, 'is thus not more than £700,000,000 It is obvious that we are in great danger of our gold reserves being exhausted at a rate that will render us incapable of waging war if it is prolonged.' In February 1940, the Treasury estimated that this total sum, which ought to last for three years if prudently husbanded, would at the present rate of expenditure be consumed at the end of two years.

After this warning, the War Cabinet ordered an investigation into the possibility of scaling down the armament programmes. This would certainly be an effective way of curtailing dollar expenditure; but it might be equally effective as a way of losing the war. An alternative answer to the insistent problem of foreign exchange was therefore sought by a drive to increase the current earnings of British exports. Despite the plentitude of government exhortations, British exporters had been given little practical encouragement in the opening months of the war. They found themselves hampered by the export licensing mechanism, which had been established in the Board of Trade not primarily to facilitate British exports, but to conserve scarce materials for home use and to prevent exported goods from reaching countries through which they could be filtered to the enemy—i.e. to wage economic warfare against the enemy.² Meanwhile, the new Controllers established in the Ministry of Supply were for the most part intensely preoccupied with Service needs: ignoring the Government's official doctrine about the vital

¹ In a return made by the Bank of England (February 1940) of British-owned securities in North America which had been registered in accordance with the regulations, five grades were distinguished:

		\$ millions	
		U.S.	Canada
Grade A	. . . . .	769	} 275
" B	. . . . .	108	
" C	. . . . .	60	
" D	. . . . .	105	
" E	. . . . .	31	
		<u>1,073</u>	<u>366</u>

Securities in Grade A were readily marketable and those in Grade B fairly valuable; at the other end, securities in Grades D and E were practically unsaleable.

² S.R. & O. 1939, Nos. 945, 984, 1024 and following Orders. The main Export Control Order, dated 1st September 1939, covered a wide range of raw materials, semi-manufactured and manufactured goods which could not be exported without licence. Destinations were classified into A (all countries outside the United Kingdom), B (all countries outside the British Empire) and C (specified European countries or areas). Although the Export Licensing Department was established in the Board of Trade, the pressure for more stringent control and longer lists of prohibitions came from the Ministries of Economic Warfare and Supply, with which the Board of Trade found itself continuously in dispute.

importance of exports, some of them flatly refused to make available the essential materials the exporting industries needed. On top of these frustrations inflicted upon them by the controls, would-be exporters suffered also from the violent disturbance of trade channels and the shipping difficulties of the first war winter.

But by the late winter and early spring the War Cabinet had made up its mind to clear the ground for a genuine 'National Export Drive'. Lord Stamp, as adviser on economic co-ordination, had produced a series of memoranda stressing the need for an export policy that would be both vigorous and discriminating, choosing with care exportable goods of high conversion value¹ and export markets that would yield the hard currencies. A sub-committee of ministers, specially appointed to promote the export drive, set greater store upon the vigour recommended by Lord Stamp than upon the discrimination: so too did the Export Council, which was established on 1st February 1940 and at once appealed to 'all industry for all exports'.² Probably the most important thing this Export Council did was to set up export groups in a number of British industries. At the time, these groups did very little to start a stronger flow of British exports, but some of them proved themselves useful, later on, as instruments of the concentration of industry, a policy which aimed at releasing plant, floor space and labour from the production of civilian goods to war industry.³ Indeed, it was the fate of the export drive and all its attendant instruments to be overwhelmed, before their effectiveness could be properly tested, by the tidal wave of military crisis. The Limitation of Supplies Orders illustrate this. One of the most promising things that the Board of Trade had done to foster exports was to set up an Industrial Supplies Department with the specific duty of determining the competing claims upon raw materials advanced on behalf of the home civilian market and the export market. On 16th April 1940, the new department went into action with a Limitation of Supplies Order which cut down by twenty-five per cent. the supplies of cotton, rayon and linen piece-goods and made-up goods available to British wholesalers for resale to domestic retailers or makers-up.⁴ After Hitler had let loose his victorious *blitzkrieg* in western Europe, new and far more

¹ i.e. exports involving the highest possible addition by British labour, management and plant to the value of the raw materials.

² Cmd. 6183.

³ See below, pp. 310.

⁴ S.R. & O. 1940, No. 561. The reduction of twenty-five per cent. was on the standard period, 1st April to 3rd September 1939; but, in view of the many exceptions in favour of blackout materials, overalls, the needs of hospitals, the W.V.S. etc., etc., it was in fact a good deal less. Note that the Board of Trade had rejected the project of control at the raw materials stage, choosing instead to limit the manufactured or semi-manufactured articles at the stage of wholesale distribution.

comprehensive Orders¹ were issued with an additional purpose—to stint British consumers, not primarily for the sake of exports and foreign exchange, but for the sake of British war production. Here was the beginning, or at least the forecast, of austerity.

All the main elements in the problem of foreign exchange have now been examined—British exchange control, the sterling area, the payments agreements with foreign countries, the value of British reserves and external investments and the process of turning the latter into current cash, import restrictions, the export drive, the mounting total of overseas war expenditure. The examination has revealed nothing seriously amiss in the mechanism of policy, but a serious deficiency of motive power. The United Kingdom's capacity to wage war on the scale necessary to ensure victory was dangerously constricted by the limits imposed upon her capacity to pay for overseas supplies. All the more need, therefore, to generate the maximum intensity of effort within those limits. Before the fall of France the British Government was not achieving this maximum.

There was a discrepancy between the financial and the military outlook upon time. To dole out reserves of gold and foreign exchange at the rate of £150 millions a year might be sound policy if the war were likely to last three years; it could not be sound policy if the enemy were planning to win it in one year. This must have been the thought in the French Prime Minister's mind when he declared that he would be ready to sell his nation's art treasures for American aircraft. If only the Americans had been ready to deliver them! They too were clinging, far more intensely than the French or the British, to the commercial, unmilitary notion of time. When in February 1940 the French and British Governments made up their minds to spend their dollars rather more quickly, they had perforce to spend the greater part of them, not on combat aeroplanes and weapons—they were not ready—but on developing America's capacity to produce them. The production came months and years too late to be of any use to France.

It would be an interesting exercise in hypothetical statistics to estimate what the eventual size of the British war effort would have been if the United States had not in March 1941 thrown aside the 'cash' provisions of their neutrality legislation and if Canada had not throughout the war overcome every financial impediment to full economic collaboration with Britain. There would perforce have been a smaller R.A.F. and a smaller Navy and far fewer divisions in Normandy—if ever there had been a Normandy. There would have

¹ S.R. & O. 1940, Nos. 874, 875, and following Orders, covering various kinds of machinery, and consumer goods such as pottery, glass, cutlery, hosiery, toys, games, musical instruments, etc.

been a much smaller war industry working for these diminished Forces, and a greatly expanded export industry struggling to earn the overseas supplies essential to sustain the United Kingdom's small-to-medium mobilisation. Such a distribution of the national resources—the very contrary of the overstrain and unbalance which were the eventual legacy of the war—would have been highly favourable to British recovery after victory. But here the smooth hypothesis breaks down. Victory was not to be bought on the cheap.

Economic prudence, estimating in long-term the interests and bare needs of the people and the interlocking long-term interests and needs of the British Commonwealth and of world society, could not be brought into congruity with military prudence, estimating the immediate, urgent requirements of armed resistance. For the sake of present resistance and future victory, Britain at last threw economic prudence to the winds. When France was already falling, the new British Government discarded the old policy of overseas purchase. On 10th May, the very day on which the Churchill Government took office, a memorandum from the Stamp Survey proposed that the balance of payments policy that had hitherto been followed ought henceforth to be scrapped, in so far as it impeded the speedy procurement of armaments. Before this document was considered by any committee of the War Cabinet,¹ the Prime Minister had secured from his colleagues authority to state Britain's most urgent requirements in a personal communication to the President. His communication contained this sentence: 'We shall go on paying dollars for as long as we can, but I should like to feel reasonably sure that when we can pay no more you will give us the stuff just the same.' On 27th May, Lord Lothian, in more formal terms, made a similar communication to the American Secretary of State. Finally, on 3rd July, Lord Lothian presented to the United States Government an aide-mémoire which stated comprehensively the demands that Britain, 'now almost the last free country in Europe', intended to make in the first place upon herself, and secondly upon the United States. His Majesty's Government intended to draw upon American resources to an extent not hitherto contemplated. So long as they were able, they would continue to pay cash for American armaments, materials, tools and foodstuffs.

They feel however [the aide-mémoire continued] that they should in all frankness inform the United States Government that it will be utterly impossible for them to do this for any indefinite period in view of the scale on which they will need to obtain such resources from the United States. Their immediate anxiety arises from the necessity of entering into long-term contracts.

¹ It was considered by the Ministerial Committee on Economic Policy on 27th May.

Dollars would be of no use to the United Kingdom if the German and Italian onslaught rubbed out British national life in 1940 or 1941. And, if this onslaught did succeed, American democracy would find itself in the front line of war before it had armed itself for war. For both countries, now rapidly discovering their deep partnership of strategic interest and ideals, the act of faith was also the act of prudence—of prudence defined (for the United Kingdom) not in economic but in military terms.

It must not be imagined that the British were magically freed from all their difficulties of external payment, either in the summer of 1940 or even in the early spring of 1941, when the Lend-Lease Act was passed. In subsequent phases of the war they found themselves, as will later be shown, constantly compelled to exercise great care in husbanding and allocating their resources of foreign exchange. Nevertheless, in the summer of 1940 it became probable, and in the following spring it became certain, that the British people would not lose the war through the scarcity of hard currency. The scarcity of shipping was a very different matter.

(iii)

Carry

In 1917 and 1918 mortal peril had been warded off by the Navy's valour and skill in fighting the U-boats, by the Merchant Navy's courage, by convoy and the other apparatus of Admiralty control, and by civilian control both of ships and cargoes. All this experience was available to the British Government when it was making its plans for the employment of the resources of shipping-space available to it in a new war. In its planning of United Kingdom imports (with which the present chapter is most concerned) the Government might have drawn one lesson in particular from previous experience: namely, the inadequacy of a partial control. The spasmodic and partial interventions of the earlier years of the last war had cured or mitigated particular scarcities, temporarily at least; but they had created indefensible inequalities in the shipping industry and had aggravated the general scarcity by causing an overall waste of the diminished tonnage available to the nation in its great need. In the end, the Government had been compelled to face the need for total control. Its control over ships was exercised through the requisitioning system operated by the Ministry of Shipping. Its control over cargoes did not in practice attain the same completeness; but the principle of substituting departmental decision for the individual

choice of importers, and determining conflicting departmental claims by a committee of the War Cabinet, was embodied in action at the time, and clearly expounded in retrospect.¹

In despite of this experience, the United Kingdom entered the Second World War with plans for a *partial* control of shipping and sea-borne supplies. How is this fact to be explained? Explanation must no doubt be sought in large measure in considerations of an administrative kind. It is only too easy for the historian, with his after-knowledge of eventual achievement, to forget the simple fact that the type of control exercised at the end of a war—in 1918 for example—requires elaborate departmental organisation and staff; these take time to build up, and, until they have been built up, the controls which assume their existence are inappropriate. Bearing this truth in mind, the critical historian may feel justified in arguing that the war planners of the late nineteen thirties would have done well to devote more energy—not only in the sphere of shipping policy but elsewhere—to the building up of skeleton administrative staffs, rather than to hypothetical calculations of requirements and supplies.

As it turned out, the forecasts of shipping resources and the probable demands upon them suggested that there need be no great urgency in building administrative foundations for controls of the 1918 stamp. The basis of these forecasts was as much strategical as economic. The men responsible for planning the employment of British-controlled tonnage could hardly be expected to anticipate a German occupation of the western coasts of Europe from the Pyrenees to the North Cape. Not that all the advice that came from the strategical experts was optimistic; very serious warnings were given about the damage that might be inflicted by enemy air attacks upon port facilities and shipping in the ports. The Admiralty, however, was optimistic about the Navy's capacity to cope with attacks upon ships at sea. It was leaving nothing to chance. It intended to introduce convoy at the very beginning of the war. It believed that the convoy system and the anti-submarine patrols would be able to keep U-boat sinkings reasonably low. This confidence was subsequently justified by events, up to the time when British naval losses during the last phase of the Battle of France, the subsequent advance of German bases along a wide Atlantic front, the defection of the French fleet, and the entry on the other side of the Italian fleet completely overturned the strategical assumptions with which the war had begun. Up to the time of this immense reversal of fortune, the gains and losses of merchant ships from all causes roughly balanced.²

¹ See above, pp. 30; and cf. Sir Arthur Salter, *Allied Shipping Control* (Carnegie Endowment, O.U.P. 1921).

² See Table 3 (c) on p. 80.

Moreover, the Germans still held back the *Luftwaffe* from attacking British ports. The first half-year of war at sea was, by the standard of previous experience, easy—not at all the kind of war that Britain had fought in 1917–18, and had, after great tribulation, won. And yet, this first half-year witnessed a severe import crisis and a depressing wastage of the precious stocks of food and raw materials that were to be of such crucial importance in the harder war that lay ahead.

These setbacks took the Government almost entirely by surprise. The explanation of them—since the Admiralty forecasts were proved correct—must be sought in miscalculations on the civilian side. At the end of 1938, the problem of British resources of shipping in relation to import needs was being studied by the Committee of Imperial Defence. Earlier in the year,¹ the President of the Chamber of Shipping had delivered a speech which alleged that the Merchant Navy had been allowed to decline to a level incompatible with national safety in time of war. The allegation was one-sided and the Mercantile Marine Department produced a document which included evidence on the other side. This was desirable and indeed necessary; but the outcome was a tilting of the balance too far on the side of optimism.

The document laid justifiable stress upon the favourable strategic forecasts. There were, on the other hand, certain unfavourable factors which it discussed. The mercantile marine of the United Kingdom was about $1\frac{1}{4}$ million gross tons smaller in 1938 than it had been in 1914 and the decline in dry cargo vessels was much larger than this, since United Kingdom tanker tonnage had risen by over $1\frac{3}{4}$ million gross tons in this period. The annual output of the shipyards had shrunk considerably: whereas between 1911 and 1913 it had averaged two million gross tons a year, in every year since 1931 it had been below the million mark, in some years a good deal below it. Yet there existed some compensating factors. If tonnage on Dominion and Colonial registers were included with the United Kingdom merchant fleet (though the United Kingdom Government had no direct control over Dominion ships) the total was only about half a million short of the 1914 figure. Moreover, there was included within this total a larger tonnage of ocean-going ships suitable for long voyages. And if the fleet was, on balance, older, it nevertheless contained a larger proportion of the faster vessels.

It was, however, not merely the size of the merchant fleet and its peace-time efficiency that needed to be reviewed; what was wanted was an estimate of carrying capacity under war-time conditions. Such an estimate is extremely difficult to make. There are certain things that cannot be predicted in advance of war with any reasonable

¹ 31st March 1938.

accuracy: for example, the balance of gains and losses. There are certain other things, such as the savings that may be made by reducing the number of loading and discharging ports, which can be predicted with tolerable correctness by an experienced statistician with a thorough practical knowledge of shipping. The document under discussion did not possess this expert character; but it offered some reassuring estimates. The carrying capacity of available British shipping (after deducting the tonnage required by the Army and Navy and allocated to Empire supply and the cross trades) should suffice to bring to the United Kingdom in the first twelve months of war 48 million tons of dry cargo imports.¹ British requirements of dry cargo imports for the same twelve months would be 47 million tons. Consequently, there would be a safety margin of one million tons. This satisfactory result could be achieved by British shipping alone—not counting the large tonnage of neutral shipping which, it was confidently expected, would come into British service when the blockade sealed up many of the normal opportunities of shipping employment.²

These forecasts were made nearly two years before war broke out. They may be contrasted with an expert estimate which was made in the Ministry of Shipping early in the war—that British *and neutral* shipping *together* might be able in the first year of war to bring in 47 million tons of dry cargo imports.³ It was this latter estimate, not the more sanguine one submitted before the war, that was subsequently, in very large measure, proved true.

The optimistic forecasts that were current before the war may well have encouraged a disposition to postpone the imposition of complete control over shipping. Even if such a control had been imposed at once, it could not at a stroke have achieved its object, the switch-over of British shipping to its war tasks; for such a switch-over is a large and complicated undertaking which can only produce its full effects cumulatively over a period of months. This was an additional reason for making a prompt beginning; indeed, in the calculations of 1938 it had at the outset been assumed that the shipping industry would be brought under effective control 'from the outset of the emergency'. But this assumption very soon dropped out of sight. Instead, it came to be assumed that the British shipowner knew his

¹ Tanker imports and tanker tonnage, as being the concern of the Oil Board, were not included in the calculation.

² According to later calculations by the Ministry of War Transport, about 43 per cent. of U.K. imports (by weight) in peacetime were carried in foreign ships.

³ This estimate was repeated in February 1940, subject to the explicit warning that no margin had been left in it for unfavourable contingencies which ought to be insured against. Unfavourable contingencies did in fact occur after April 1940. In the event, neutral and British ships brought to the United Kingdom during the first twelve months of war 44.3 million tons of dry cargo imports.

own business best and should be left as free as possible to follow the normal incentives of his calling. At the beginning of the war the Ministry of Shipping was expected to administer, not the full requisitioning system that its predecessor had instituted and operated in 1917, but the gentler, more negative system of ship licensing.¹

There was another weakness in civilian preparations to safeguard overseas supplies. No really thorough attempt was made to calculate how far British imports might under war conditions be limited by shortage of port capacity.² One of the major factors determining the carrying capacity of a ship is the time she spends in port—in loading or discharging cargo and in other port operations. In peace a liner spends more than half her life in port and a tramp a smaller, though still very considerable proportion of time. Between 1914 and 1917 the times spent in port had been so much extended that, as a result of the difference, the United Kingdom almost certainly lost more imports, in any single year, than the submarines sank.³ Delay at the ports had occurred principally because of the disorganisation of the normal machinery of trade, combined with the large demands made by the Services on port capacity. In the nineteen-thirties there was visible danger, not merely that this situation might repeat itself, but that it might repeat itself in exaggerated form; for it was realised that in any future war the ports would be heavily bombed.

In the years of preparation, the strategical experts had given clear warning that ports rather than shipping might limit British imports. In 1933, the Committee of Imperial Defence set up a sub-committee to review the whole question of the capacity of the ports and inland transport to handle imports, particularly in the event of the diversion of ships from their customary ports. The sub-committee spent four years on its task and its final report was optimistic. It found that even if seventy-five per cent. of the tonnage which normally entered the south and east coast ports was diverted to the west coast, the port

¹ The Ship Licensing system was administered by a committee of owners and civil servants. The Lines were given a general licence, subject to revision, permitting them to operate on their normal berths. They were, however, bound to load their ships according to the guidance given by a priority cargo list, in which was left a certain allowance of free choice which varied from route to route and which was justified by the impossibility of producing at that stage a fully detailed and comprehensive list. In contrast to the liners, the tramps had to get a specific licence for each separate voyage—a contrast which suggests the stock simile in which the liner is said to be like a train and the tramp like a taxi.

² This problem fell within the jurisdiction of the Ministry of Transport, whose investigations were parallel but not in close co-ordination with those of the Mercantile Marine Department into the carrying capacity of British shipping.

³ In 1917 the United Kingdom imported (excluding petroleum products) some 34 million tons of commodities. In the first four months of the year, at the peak of the U-boat effort, cargoes were being sunk at a rate of about five million tons a year. At the same time the loss from delays in port, taking peace-time performance as a standard, was between four and five million tons. It must of course be remembered, in comparing the losses from sinkings with port delays, that sinkings are cumulative and port delays are not: ships sunk in one year mean so many the less the next.

facilities there would be adequate. But the basis of this reasoning was extremely shaky. The sub-committee had collected estimates of what each west coast port supposed it could handle regardless of the types of goods imported and the burdens on other ports and upon inland transport. It had collected estimates from the railways about the traffic they could carry from the west coast ports, considering each port in isolation and out of relation to inland transport movements. It had added up the number of deep sea ships that could be accommodated in the west without considering any of the factors which determine the time a ship spends in port. The whole port problem was then remitted to yet another committee which discovered in March 1939 that the estimates of its predecessor were 'complete nonsense'. But by then time was too short. Britain entered the war without any realistic estimate of port capacity if ships should be diverted to the west coast ports. The dangers of this over-confidence were not apparent until the fall of France made diversion necessary; in the winter of 1940-41, the United Kingdom was losing once again as large a volume of imports because of port delays as it was losing because of cargoes sunk. In September 1939, however, no doubts about port capacity clouded the prediction that United Kingdom dry cargo imports in British ships would be about 48 million tons in the first year of war.

The estimate of British import requirements had no firmer foundation than the estimates of British shipping and port capacity. The origins of the seemingly precise figure of 47 million tons of imports can be traced back to some vague statistical manipulations between 1936 and 1938. In 1936, the figure of 52 millions—about three millions less than average peace-time imports—had been cited to the Committee of Imperial Defence; but the Food Supply Sub-Committee unwittingly complicated the issue by recommending that 'an overall decrease of imports of food of twenty-five per cent. should be assumed throughout the duration of the war'. On this authority, the Mercantile Marine Department cut its estimate of food requirements from 20 million tons to 15 millions, thereby bringing down the total of import requirements to the 47 million figure. But the officials of the Food (Defence Plans) Department had never for one moment imagined that their import programme could be slashed in this way. In so far as they paid any attention to the twenty-five per cent. estimate, they accepted it as a measure of the losses which enemy action might inflict upon British food supplies if no counter action were taken. They then proceeded to take counter action. By their judgement, if there were indeed a danger of a twenty-five per cent. fall in arrivals of food owing to destruction and delay at sea, loadings of food in overseas ports must be correspondingly increased. While, therefore, the planners responsible for the nation's ships were scaling down the programme of food imports, the planners

responsible for the nation's food were scaling the programme up. Neither party took any notice of what the other was doing; nor did the Committee of Imperial Defence uncover the discrepancy of calculation and planning.

And so the word went round that there would be plenty of ships. How far this mood of muddled cheerfulness was the product of the calculations which have been reviewed, how far these calculations were themselves the product of the prevailing mood, need not, and possibly cannot be determined; but some of the clear consequences should be pointed out. One consequence was a lack of realism in the zone of import policy that persisted throughout the first period of the war and proved hard to eradicate even after the reverses of 1940. In September 1939, the organisation of the importing departments and of the shipping authorities was admittedly much further advanced than it had been in August 1914; but plans fell a long way short of the 1918 mark. The shipping authorities concluded that a partial control over deep-sea tonnage would be good enough to start with, the importing departments concluded that a partial control over supplies would be good enough, and the War Cabinet was not ready for the task which Lord Milner's committee had undertaken on its behalf in 1917—the scrutinising and adjudication of conflicting departmental claims on shipping, so that out of them might be hammered a national import programme adjusted to the actual facts of the shipping situation.

Another consequence was the relaxation of preparations for import-saving production at home. The plans for British agriculture offer a good example; in September 1939 they were less drastic than they had been two years earlier. In 1937, the Committee of Imperial Defence had approved a war agricultural programme dominated by the memories of the 1917 submarine campaign and the wheat famine of the succeeding seasons. The basis of this programme was the conversion of grassland to arable in order to grow crops that would give the largest and quickest return in food value and that were bulky to import. In particular it would be necessary to increase the output of wheat, potatoes and oats for direct human consumption. A large quantity of home-grown corn would also have to be diverted from animal to human consumption. At the same time, a considerable fall in imports of animal feeding-stuffs was expected. All these plans together made inevitable a drastic fall in the number of corn-eating and grass-eating animals—that is, pigs, poultry and sheep. These policies of 1937 were never formally rescinded but, in the growing expectation that there would be plenty of shipping, they were quietly obscured. In 1939, it was thought that temporary interruptions of cargoes of animal feeding-stuffs were still possible. And shortage of foreign exchange might limit imports—imports not of the bulky foods

such as wheat but of expensive foods like meat and cheese. Gradually, the necessity of ploughing grassland became accepted mainly as a preparation for a greater production of animal feeding-stuffs in order to maintain the supply of meat and dairy produce.

All this was symptomatic of a change in the general tone of agricultural policy which took place between 1937 and 1939 and expressed itself emphatically in the early war months.¹ The original idea of a food production campaign concentrating upon crops for direct human consumption had slipped into the background and did not re-emerge until the disasters of May and June 1940 revived the memories, and the policies of 1917.

A more important consequence of the unrealistic forecasting of British importing capacity was the inadequate action taken to build up stocks of food and raw materials. On this subject there had been considerable public discussion from 1936 onwards. In the mid-summer of 1939, Sir Arthur Salter, one of the protagonists of a vigorous policy of stock-building, proposed an exact figure: 13 million tons of stocks would, he said, 'enable us to carry on for three years of war with a loss of shipping which, in the absence of such reserves, would have crippled us in little more than a year.' Here it is necessary to make a distinction between a stocks policy that is designed to save shipping and one that is designed to safeguard war production. The authorities responsible for war production will inevitably concern themselves with specific commodities of strategic importance which are likely to become difficult to procure in time of war, either through a rise in total demand or because of enemy domination over important sources of supply. Such commodities are not necessarily the bulky ones. Sheer bulk is, however, the primary concern of the shipping authorities. They have no specific interest in any particular cargo unless it happens to make big demands upon shipping space. Before the war, Sir Arthur Salter and those who shared his opinions concentrated their attention on three commodities which, between them, accounted for nearly half the tonnage of British imports. These three were iron-ore, grain, and timber. All of them were primarily tramp cargoes and largely inter-changeable with each other from the shipping point of view, so that it did not matter what emphasis was given in storage policy to any one of them. All that did matter was to bring in 13 million tons, or some other big *total*, before the outbreak of war.

This advocacy made little impression upon the Government. Before Munich, it conflicted with the doctrine of a war of limited

¹ The price increases which came into effect in January 1940 represented, when compared with the averages for January 1939, a twenty-five per cent. increase for sheep and fat cattle and a thirty-three per cent. increase for pigs. Part of this increase represented the higher cost of feeding stuffs due to the unforeseen shortfall of imports, but part of it was 'incentive'.

liability; for what was the use of accumulating large quantities of iron-ore when the nation would have to equip no more than five or six divisions for modern warfare? It conflicted also with the doctrine of normal trade, since the accumulation of stocks by government action might have a disturbing effect on trade prices. And even when these two doctrines went by the board, the Government still rejected the premises underlying this troublesome agitation of economists and M.P.s. If its own experts were right, if shipping were going to be plentiful, why insure against a serious shipping shortage? The Essential Commodities Reserves Act, passed through Parliament in 1938, had a more limited purpose; to give moderate insurance against temporary deficiencies and delays likely to accompany the early months of war.¹ Some of the purchases made under this Act (especially the purchases of oils and fats) were negotiated by the food planners with considerable skill and served the country well.² They did not however constitute an effective reply to the advocates of a large stock-building policy because their total effect in forestalling the strain on shipping was small. When war broke out, the nation was poorly provided with the three bulk commodities mentioned above. It is true that the Government had bought 400,000 tons of wheat (the equivalent of five weeks' consumption); but trade stocks were low. The Government had accumulated no stocks at all of iron-ore and timber. Trade stocks of iron-ore at 1.2 million tons (equivalent to ten weeks' supply³) were higher than the normal peace-time average; but trade stocks of timber were far below the average.⁴ In consequence of all this, the Ministry of Shipping found itself dangerously short of elbow room in its attempt to cope with the flood of difficulties which immediately followed the outbreak of war.

In the years before the war, British imports had averaged over $4\frac{1}{2}$ million tons per month, with a lower average for the mid-winter

¹ The plans of the Mercantile Marine Department at this time represented an advance on the 1938 report to the Committee of Imperial Defence, to the extent of assuming for the early months of war a reduction of fifteen per cent. in the carrying capacity of British ships, owing to the introduction of convoy and other temporary dislocations. The actual reduction in the period September-December 1939 was thirty per cent., a figure which the Ministry of Shipping thought might be cut down, under favourable circumstances, to twenty to twenty-five per cent.

² The Food (Defence Plans) Department sought authority to spend £25 millions and received Treasury sanction for spending £15 millions. In addition to whale oil, it laid in stocks of sugar, which were dissipated in the early weeks of war by the delay in the introduction of rationing, and of wheat, which were engulfed in the shipping shortage.

³ The estimate of ten weeks' supply may be optimistic, since the trade normally holds five weeks' supply for ordinary distributive purposes.

⁴ In October 1939 trade stocks of timber were 617,000 standards, as against the peace-time average of one million: and yet in the previous June the Government had still been considering 'whether any reserves are desirable in principle, and if so, whether they can be obtained'.

months. The monthly figures of imports up to the fall of France were as follows:

	<i>Thousand Tons</i>
September	2,831
October	3,090
November	3,528
December	3,690
January	3,810
February	3,598
March	3,856
April	4,207
May	4,177

The table shows that imports in the first two months of war fell short of peace-time performance by more than a third. In the following months they rose appreciably, despite the seasonal disadvantage; by the spring they were less than half a million tons short of the peace-time average. However, it had by then become quite clear that the accumulated backlog on requirements would never be made up. And a far grimmer battle on the seas and in the ports was now closely impending.

Within the general framework of monthly import totals, attention may now be given to the three commodities discussed above, wheat, iron-ore and timber—not because these commodities were the only ones where critical shortages arose, but because their story is quantitatively important and has, besides, special significance for the evolution of policy. To begin with wheat. From the very first weeks of war, consumption went up and imports went down, until by November working stocks in the hands of the trade were reduced to so low a level that some mills actually ran out of wheat and had to stop work. However, in December 1939 the Ministry of Shipping brought into action the weapon of requisitioning, with the result that in each successive month up to the fall of France imports were above consumption. When France fell, a very sound stock position had been established for wheat.¹ Not, however, without cost. The Government had been compelled to spend dollars on North American wheat where it had planned to save them by procuring Australian wheat. Moreover, the concentration of requisitioned shipping on overcoming the wheat crisis had given rise to crises in other commodities.

Import requirements of iron-ore for the first year of war, as stated by the Ministry of Supply, were seven million tons, or rather more than 580,000 tons per month. For the first three months of war,

¹ On 6th December 1939, the War Cabinet had adopted, as a minimum safety standard, wheat stocks equivalent to thirteen weeks' consumption (in fact more, when home-grown wheat was coming in).

actual imports came in at a little more than half this rate, which indeed was never once reached during the first six months of war.¹ In February, when the Ministry of Supply appealed to the War Cabinet, stocks had fallen below the ordinary needs of the trade and works were already beginning to close down. Fortunately, by that time the wheat crisis was well on the way to solution, so that it was possible to switch an increasing number of requisitioned tramps to Narvik and Kirkeness, French North Africa, Sierra Leone and Newfoundland, the main sources of supply. But the start had been slower than with wheat, and the backlog was never made up. At the end of the first year of war, the Ministry of Supply was nearly two million tons short of the imported iron-ore for which it had budgeted.

For wheat, the turning point had come in December; for iron-ore, it came in February; but for timber it never came at all. Month after month, imports of timber were less than a half, sometimes less than a quarter of Ministry of Supply requirements.² There were no stocks from which the deficiency might be made good; nor were there ships enough to switch from the closed Baltic to the long British Columbian haul. Warnings were frequently given that the timber shortage was jeopardising the military and munitions programmes of the Government and in particular the building of munitions factories and of hutments for the troops. Despite these warnings, timber was sacrificed, and rightly sacrificed, for the sake of wheat and iron.

By whose decision? The Ministry of Supply, once it was convinced that its clamours and complaints could not exact more tonnage from the Ministry of Shipping, was certainly competent to decide between the respective claims of iron-ore and timber; just as the Ministry of Food was competent to strike a balance between wheat and feeding-stuffs. But there did not as yet exist any authority, short of the War Cabinet, which could decide between feeding-stuffs and iron-ore, or wheat and timber. In consequence, the aggrieved departments kept coming to the War Cabinet with their contending and incompatible claims upon the Ministry of Shipping.

In the first months of its history, the Ministry of Shipping achieved a great deal, despite the impediment of those pre-war political decisions that have been described. In its organisation, and in the technical instruments that it commanded—for example, in its complicated and exact apparatus of shipping intelligence—it was able to

¹ Monthly imports rose from 263,350 tons in the first month of war to 443,000 in the sixth (February). April was the first month in which the peace-time average was reached and passed.

² The September statement of softwood timber requirements for the first six months of war worked out at an average monthly import of 425,000 tons, with which may be contrasted actual imports of 183,300 tons in December and 98,100 tons in January. Even in April the figure was only 180,100 tons.

draw with great profit upon the experience of 1917-18. Working in close contact with the Admiralty, it played its part in the institution of convoy control, in the closing and reopening of the Mediterranean, in the switching of sea traffic from the east ports to the west ports and back again, in the holding of ships in port to be fitted with guns and degaussed against the magnetic mine, and in all the other emergency operations of the early months of war. Its precise arithmetic soon rectified the optimistic forecasts it had inherited. It took realistic measure of the carrying capacity of the British merchant fleet and the aid to be expected from neutral shipping.¹ Moreover, in order to get maximum service from the drastically scaled-down total of effective resources available to it, it rapidly refashioned the policy which it had been called into being to administer.

Less than a month after the Ministry's inauguration, the Director-General felt constrained to point out that control through the licensing of voyages, whatever might be said in its favour as a transitional measure, was already suffering a change in its original nature and intent: instead of operating mildly and negatively with infrequent interferences with owners' intentions, it was becoming an ill-concealed dictation to all owners as to the voyages they might undertake. Indeed, nothing short of dictation—that is to say, positive government control—was capable of getting the nation's ships to the places where they were needed—to North America for wheat, to Narvik for iron-ore. As has already been seen, the Ministry was compelled to use the weapon of requisitioning in order to overcome the urgent crises of wheat and iron-ore. Nor was its action in these special instances haphazard; from the early days of December it was moving purposefully towards the all-inclusive requisitioning of deep-sea shipping as an objective of fully considered public policy. The inauguration of this policy was announced on 4th January 1940.

From that day, the Ministry had power to extract much fuller value from the carrying capacity of the merchant navy, since every ship could henceforward be sent to the destination, and loaded with

¹ cf. p. 123 above. Before the war it had been expected that the British blockade would aggravate the world's chronic over-supply of tonnage and bring neutral owners in flocks to the Ministry of Shipping, there to be employed on terms not unfavourable to the Treasury. What the war in fact produced was a world shortage of shipping which sent neutral owners frolicking after high freights. The British Government was unwilling to join the rush into the short-term freight market, partly because of its need to husband the means of payment, partly because of its reluctance to pay foreigners at a vastly higher rate than it was paying its own people. Consequently, it endeavoured to secure blocks of tonnage on a long term basis at reasonable time-charter rates. This policy necessitated protracted negotiations, which did not produce substantial results until the German invasions of western Europe changed the political atmosphere and the terms of bargaining. Meanwhile, the Ministry of Shipping did its best to fill the gap with voyage-charter arrangements. These were expensive, precarious and inadequate. Attempts to buy neutral ships were also made; but the results were small, for ships had become a good investment again and the neutrals had no inducement to sell except at high and rapidly rising prices.

the cargo, that the national interest demanded. But the national interest was not always easy to define; nor was the Ministry of Shipping always the appropriate authority for defining it, even within the sphere which seemed peculiarly its own. For it is wrong to allow large issues of economic policy and the structure of the war economy itself to be determined incidentally by the day-to-day operations of shipping. Such issues occurred frequently through the overlap of 'cash' and 'carry'; considerations of 'carry' demanded concentration on the short hauls; but considerations of 'cash'—or of economic warfare—often demanded the reverse. Again: if the United Kingdom's import programme had been the only test, British tonnage should have been withdrawn completely from the 'cross trades';¹ but this policy would have been expensive in 'cash', and would besides have jeopardised the war-making power of the overseas Empire. The Ministry of Shipping, therefore, had to do its best within the limits of policies which originated in the Treasury, the Ministry of Economic Warfare, or elsewhere, and were ultimately decided by the War Cabinet.

In those early months, the War Cabinet did not decide enough. Allocations of tonnage by the Ministry of Shipping, in despite of its own desires and explicit protests, were determining not merely short-term loading programmes but long-term import priorities as well. This happened inevitably through the War Cabinet's failure to establish an authority charged with responsibility for scaling down the total of import requirements to fit the total of available capacity. As has been seen, the Ministry of Shipping had given early warning that import requirements would have to be scaled down. It was a warning that the importing departments were most reluctant to observe. They found it hard to free themselves from the great expectations which they had been encouraged to form before the war. They demanded more proof—and so did the War Cabinet itself—that the shipping authorities could not produce less discouraging statistics and prophesy smoother things. In the meantime, they allowed their own calculations of requirements to stand, if indeed they did not increase them.² However, as the first half year of war drew towards its close, they found themselves compelled to modify these tactics of stone-wallling. On 19th December 1939 the War Cabinet had assigned to the Lord Privy Seal (Sir Samuel Hoare) the task of investigating the shipping resources available to the nation.

¹ i.e. ships trading between any two ports other than United Kingdom ports.

² Despite the Ministry of Shipping's figures and its call in December 1939 for adjustment to the shipping shortage by restricted consumption and the increased use of substitutes, the Ministry of Supply in January 1940 put up its import requirements from 23.9 to 30.6 million tons. This put up the total import requirements to 53.7 million tons, which on the more favourable assumption was nearly 7 millions, and on the less favourable one 12 millions above the estimate of available shipping space.

His report, which was presented to the War Cabinet in February 1940, emphatically corroborated the judgement of the Ministry of Shipping. It showed that the shipping situation, so far from improving, would get still worse in the second year of war. It went on to propose drastic cuts in imports, a more realistic policy of agricultural and other import-saving production, and a more provident policy in regard to stocks. In consequence of this report the Lord Privy Seal was invited to review the current import programme as a whole. He remitted this task to a committee of officials, who had their report ready at the beginning of April. The War Cabinet accepted their proposals for scaling down the import requirements for the first year of war. In broad outline, these proposals were as follows:

	<i>Million Tons</i>
Ministry of Food . . .	19.00 to 19.95
Ministry of Supply . . .	23.64
Unallocated . . .	1.15
TOTAL . . .	43.79 to 44.74

At last a real beginning had been made in lifting the shipping problem above the level of departmental tussle, and in adjusting the total of requirements upon overseas supplies to the total of available tonnage. It was, however, no more than a beginning. The savings suggested in the above figures were to some extent the product of paper adjustments which had no counterpart in the actual importing plans of government departments or private business men. When France fell, war-making power was still being wasted through importation of unessential things, and of essential things in quantities which—in default of a scientific restatement of relative needs in the context of a compulsorily diminished total of imports—were sometimes excessive, and sometimes inadequate.

It is not easy to determine how much of this waste of war-making power might have been avoided. By the standards of endeavour that the nation later on accepted, and by its later standards of efficiency, there were in this opening period of the war some extravagances which seem almost bizarre. It would be possible to make a long list of commodities which, though of very indirect value to the war effort, were still being shipped to the United Kingdom in larger quantities than in peace time. Wines and spirits, Spanish onions, canned, bottled and dried fruits would be conspicuous among the food items on the list; there were besides many dubious items, chiefly odds and ends of manufacture, included in the 'miscellaneous and unallocated' imports for which the Board of Trade was officially responsible. According to the tests of necessity that Britain adopted in a leaner time, two or three million tons of shipping-space might possibly have been saved by pruning away this miscellaneous luxuriance. But, under the conditions of administrative organisation

that existed at the beginning of the war, pruning operations were always difficult and sometimes impossible. For example: the Board of Trade's acquaintance with the items on the miscellaneous list was very distant; it knew a good deal about their value, but nothing about their weight. It could control them only through the over-worked Import Licensing Department, whose primary task was to save foreign exchange and not shipping. The transfer of formal responsibility for imports of this class to the Ministries of Supply and Food did not by itself make things any better. Such a transfer took place in quite a big way in the spring of 1940; but the Ministry of Food was not yet ready to take direct control over minor items like wines and onions and canned fruits; these items, though they now figured on its programme, continued to be handled by private firms through the normal channels of trade. The Ministry of Supply was even less ready to take over from private importers full responsibility for stating the quantities of all the miscellaneous materials and components that British industry needed. In consequence, the Ministry of Shipping was forced to leave a sufficient margin of unallocated liner space to cover these undefined requirements. The commodities that flowed in through this channel were not always the ones that were needed by a nation at war; yet the national effort might well have suffered greater loss if the channel had been abruptly and prematurely blocked. Moreover, although ordinary people and the War Cabinet itself were prone to put special stress on the waste of shipping through importation of the mass of miscellaneous 'non-essential' articles, a far more formidable waste occurred through failure to determine the proper relative quantities of those bulk imports whose 'essential' character nobody would deny.

In summing up, it may be suggested that, if the pre-war estimates of shipping resources and the claims upon them had been less optimistic, some of the difficulties of the first war winter might have been avoided. Still more might they have been avoided if administrative preparations had been pushed further forward before the war began. However, once the war had begun, resolute action was soon forthcoming on the supply side of the shipping problem; the newly established Ministry of Shipping lost little time in measuring its task and instituting the controls necessary for its performance. It was on the demand side of the problem that action was dilatory.

Allowance must no doubt be made for some exceptional requirements of imports to speed the expansion of war production and for the unavoidable time-lags in expanding agriculture and other import-saving industries. What could have been avoided, or at least mitigated, was departmental boggling at the extent of the economies and efforts insistently demanded by the facts of the shipping situation.

And rationing, as will be shown in a later chapter,¹ might have been imposed more speedily.

The postponement of decisions which were unwelcome, but in the end inescapable, found support in an unexpected quarter, namely the Admiralty. Perhaps it was felt there that prompt and strict rationing would be a reflection on the Navy's ability to guard the food ships; perhaps anti-austerity preconceptions in statistical dress were the chief influence.

In the War Cabinet, the balance of forces during the first war winter favoured laxity of control. It was only by slow degrees that the War Cabinet prepared itself for its task of subjecting contending and excessive departmental claims upon shipping space to an agreed measurement of national necessity. Meanwhile, though there had occurred as yet no serious inflationary pressure against stocks,² the persistent refusal to scale down import requirements to real importing capacity found its counterpart in a drain upon stocks of imported commodities. The drain was unevenly distributed.³ In the overall stocks position of the Ministry of Supply, the graphs show first a steep decline and then a wide deep trough. The Ministry of Food, thanks to the tenacity with which it defended its 20 million tons import programme and to the success, from December onwards, of its rationing policies, had more comforting graphs to contemplate: even before the fall of France, it was improving its stocks position and thereby gaining elbow room for the more balanced food policy it subsequently adopted. But of the national position as a whole the graphs tell a depressing story. When all due allowance has been made for the special difficulties of the change-over from peace to war, there still remains the obstinate contrast between a volume of imports far higher in the first year of war than in any subsequent year, and a seriously weakened stocks position. Government and people had failed in this time of grace to make provident use of British sea power. The nation had not as yet adjusted its imagination and will to the hard realities that would compel it, later on, to live lean.

¹ See below, Chapter VI, sec. (iii).

² See below, p. 153.

³ For some of the details see Table 3(e) on p. 81.

CHAPTER V

MOBILISATION

(i)

The First Phase

IT is the purpose of the present section to summarise the main movements of British manpower, both military and industrial, during the first nine months of the war. The next section will discuss the main problems of manpower policy during the same period.

The bare numerical outline of military mobilisation up to the fall of France is sketched in the following table:

Strength of the Armed Forces of the United Kingdom
(excluding locally enlisted abroad)¹

Thousands					
	End of Month	Royal Navy ²	Army	Royal Air Force	Total
1938	June	113	197	73	383
1939	June	127	241	112	480
	September	180	900	193	1,273
	December	214	1,130	215	1,559
1940	March	241	1,365	240	1,846
	June	271	1,656	291	2,218

There are one or two features of the table (apart from the comparatively small matters referred to in the footnote) which invite comment. To begin with, the table shows some marked fluctuations in the rate of intake. Between the outbreak of war and 31st December 1939, gross intake—thanks chiefly to the immediate calling-up of reservists and auxiliaries—had amounted to more than a million men; but after that, the rate fell to about 350,000 men in the first quarter of 1940. Heavy recruitments of May and June raised the total for the second quarter of 1940 to above 400,000. The figures of net intake,³ as reflected in the table, were considerably affected by

¹ In the case of the Army, men locally enlisted abroad are included before December 1941.

² Including merchant seamen serving on commissioned ships, formerly merchant ships, prisoners of war and missing.

³ Net intake = gross intake *minus* gross outflow. Gross outflow = 'total' casualties, i.e., dead, prisoners and missing (except for the Navy), *plus* men discharged for unfitness, *plus* men returned to industry. The men returned at the beginning of the war chiefly comprised skilled men who had volunteered before January 1939, the month when volunteering was subjected to the Schedule of Reserved Occupations.

the abnormal wastage that accompanied each of the two periods of abnormal recruitment: in the autumn and winter of 1939, a considerable number of skilled workers was returned to industry, and in the early summer of 1940, after the losses in the Dunkirk campaign, still more men were returned to industry, either temporarily or permanently.

The totals shown by the table are reasonably impressive—an increase of Service establishments between the eve of war and June 1940 from approximately half a million to nearly $2\frac{1}{2}$ million men. Moreover, the Ministry of Labour was ready at need to build up still more rapidly the strength of the armed forces. By 22nd June 1940, registration for military service had reached the 1910 class (men of thirty years of age) and the total of men already registered by that date was above three million. Of these, about half a million were available for immediate call-up.

However, the strength of a nation's fighting forces has to be judged not merely by autonomous national figures, but by realistic comparison with the enemy's strength. After all, it was not until the beginning of 1939 that the British Government had finally discarded the concept of a war of 'limited liability'; even if its preparations since then had achieved maximum efficiency, they would not have had time enough to bring all three Services to the strength required in the battles of 1940. It was the Army that had suffered most severely from the late start. After Dunkirk, there were nominally available in Britain about $1\frac{1}{2}$ million soldiers to fight the invading German armies, if Hitler should succeed in getting them across the Channel. But of this total, a full quarter were trained for air defence or coastal defence or other static warfare, while another quarter, including men in the R.A.M.C. and R.A.S.C., were not trained at all for actual fighting. Of the rest, 150,000 had received no more than two months' training, while many of the others, including the 275,000 veterans from Dunkirk, had a sufficiency of training but an insufficiency, if not an absolute lack, of weapons. Including 22,000 Canadians and 16,000 Australians and New Zealanders, there were in Britain barely half a million men who had both the training and the equipment for violent fighting against the more heavily equipped enemy forces.

Equipment, not recruitment, was the urgent problem of that summer. There would have been no sense in choking the armed forces with zealous men for whom there were no weapons. Nor would there have been any sense in turning men out of their jobs in the so-called 'unessential' industries before the munitions factories were ready to employ them on new jobs. What needs now to be investigated is the pace of industrial mobilisation during the first nine months of war.

A word needs first to be said about the balance between the Services and industry. The nation had roughly nine million men in the age group 16-40: of this total, approximately 5·3 millions or fifty-nine per cent, would be retained for industry under the Schedule of Reserved Occupations or excluded from the Forces through age, health, hardship, or conscientious objections, while 3·7 millions or forty-one per cent. would be available for service in the armed forces. Later in the war, the growing stringency of military manpower led to a progressive tightening of the tests of reservation until in the end the Schedule itself became obsolete; but in the first nine months the Services were able to get within its framework as many men as they could absorb. By 1st July 1940 they had absorbed more than half the male population in the age-group 20-25 and more than one-fifth in the age-group 26-30, with smaller intakes for the various groups below twenty and above thirty years of age. In total, they had received nearly a quarter (22·6 per cent.) of the male population between sixteen and forty years of age, and rather more than one-half of the full number allocated to them in the pre-war division of British manpower into a group of fighters and a group of workers.

Looking at these figures from the other angle, we see that industry had as yet made little more than half the sacrifice required from it under the Schedule. Industry was still enjoying days of grace. How was it using them? Was it drawing fully upon the supplies of labour available to it? Was it regrouping its labour force in the way best calculated to serve the nation's war needs?

Although the armed forces increased by over 1½ millions and the civil defence forces by over a quarter of a million between mid-1939 and mid-1940, the total number of men and women employed in industry only fell by half a million. There were several reasons for this encouraging fact. During the period the total population of working age in Great Britain increased by some 159,000: of this increase about 100,000 was due to net immigration from overseas, including the return of British subjects from abroad and the influx of refugees from the Continent. Much more important, the percentage of the total population of working age in the labour force showed a substantial rise for both men and women, as increased numbers were drawn into employment from the 'non-industrial' sector—boys and girls leaving school, retired people, students, private domestic servants and women working in their homes. As a result, the country's total labour force increased by about 926,000 between mid-1939 and mid-1940.¹ In addition, the number of unemployed fell by more than 600,000 in the same period—that is, by nearly a half. Added together, these changes meant that the total number actually in employment

¹ This figure includes recruits to the armed forces from Ireland, etc.

in the Forces, civil defence and industry rose by about 1,551,000 (1,027,000 men and 524,000 women).

Nevertheless, the numbers employed in industry alone were falling. Within industry there had not been enough regrouping to satisfy either the Government's experts or informed public opinion. The simplest way of indicating the salient trends of movement is to set down the percentage changes from June 1939 to June 1940 in each of the three large war-time groups of industries—Group I, the engineering and chemical industries; Group II, the chief basic industries such as shipping, land transport, coal, agriculture and the public services; Group III, the industries and services such as building, distribution, the food trades and textiles, which normally were chiefly employed on production for civilian consumers.¹

Industrial Distribution of the Labour Force

	Men		Women	
	June 1939	June 1940	June 1939	June 1940
	%		%	
Group I	20	24	11	13
Group II	31	32	12	14
Group III	49	44	77	73
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

These trends were all in the right direction—a decline of employment in Group III in relation to the other two Groups. In Group III there had been only a small net change in the employment of women; but the heavy loss of men to the Services had not been compensated by new entries and reabsorption of the unemployed. The percentage share of Group II employment had appreciably risen—a healthy sign. A larger percentage increase was shown by Group I: the outflow from this group (whose male workers were well protected by the Schedule) had been proportionally smaller and there had been besides a measurable inflow. The numerical net gain, in the numbers employed in the Group I industries between June 1939 and June 1940, was about 453,000.²

So far as they had gone, all the changes indicated above were of the right kind; but they had not gone far enough. As will be shown a little later, the net increase of employment in the munitions industries fell far below the requirements of manpower as calculated by the official experts. There was, however, one other test of industrial mobilisation which could be applied with rather more encouraging results—not, this time, the migration of workers from one Group to another, but the reorientation of their energies within the particular

¹ In the early months of the war these Groups were inaccurately called 'munitions', 'more essential' and 'less essential' industries.

² See Table 2(b) of Statistical Summary on p. 78.

Group to which they originally belonged. Even within the industries of Group III, many workers were shifting over from peace tasks to war tasks, stimulated by the restriction of materials for civilian contracts or, more probably, by the direct increase of government demand—for example, demand upon the textile industries for uniforms and other clothing, or upon the building industry for hutments and factories. Among the industries of Group II, the effect of government war demand was felt still more strongly; it is sufficient to specify land transport and the staffs (industrial and non-industrial) employed directly in the national government service. It was, however, in Group I that the shift from private orders to government orders reached its highest level. According to figures which became available for the first time in June 1940, aircraft and motor vehicles had just over ninety per cent. of their total labour force employed on government contracts. This industry topped the list; the average for the engineering and allied industries as a whole was about seventy-five per cent. When it is remembered that some of these industries were also engaged on production for export—at the time a cardinal element of the British war plan—the transfer of labour from peace tasks to war tasks begins to look more encouraging.

Nevertheless, it fell far below the level that had to be achieved if the production targets set by the War Cabinet were to be reached, or even approached. Against the actual modest increase that has been recorded above for the Group I industries must now be set official calculations of the immense expansion required in the same industries. The calculations had been made in December 1939 for the purpose of aiding the War Cabinet in its decisions upon the war production programmes. It will be recalled that the final collapse of the 'limited liability' concept, a bare six months before the war, had entailed a sudden and sensational jump of the Army programme to thirty-two divisions. At the beginning of the war, a Land Forces Committee of the War Cabinet met to determine the number of divisions which should be assumed as a basis for the production arrangements of the Ministry of Supply. On top of the thirty-two United Kingdom divisions they reckoned on eighteen divisions from the Dominions and India; it was hoped then to place fifty divisions in the field. As a basis for production arrangements a margin of ten per cent. was added, making fifty-five divisions altogether, in order to cover supplies for Britain's Allies. The supply of equipment for twenty divisions was fixed as the minimum for the first year of war and the supply for fifty-five divisions within two years was stated much more vaguely as an 'aim'. But not even the first year's programme could be considered really firm until the production requirements of the three Services had been considered as a whole, and until two much-discussed impediments to expansion, the

shortages of hard currency and of skilled labour, had been further investigated.

Study of the labour situation was remitted to an inter-departmental committee¹ representing the Ministry of Supply, the Air Ministry, the Admiralty, the Board of Trade, and the Ministry of Labour with a chairman provided by the last named. The Committee did not produce arithmetic covering the whole field of Service supply; it limited its enquiries to the metal and engineering industries including shipyards and aircraft engines. Translating the existing production policies (including the fifty-five divisions proposal) into demands for labour, and adding to them a fairly generous estimate of demand for the export and home civilian markets, it reached the following conclusions:

Net Additions Required (base date= July 1939)

By September 1940:	750,000 additional men	
	580,000	„ women
By July 1941:	1,365,000	„ men
	815,000	„ women

The rates of expansion corresponding to these totals were seventy per cent. by the autumn of 1940 and 117 per cent. by the summer of 1941. This meant that British war industry would have to achieve in two years of war an expansion three times as great as that which it had achieved in the four years from 1914-18. How was it to be done?

Perhaps the Committee believed that it could not be done. Perhaps its intimidating forecasts of manpower requirements were meant to suggest that the authorised programmes of war production would have to be cut down. Be this as it may, it did not explicitly make the suggestion. It assumed that the whole of British industry, with the exception of agriculture, mining, raw materials and the mercantile marine, would be available as a pool of reinforcements for the munitions industries. It did not deny that a sufficiency of unskilled labour might be fished out of the pool. But it pointed out that the war industries would be unable to absorb the unskilled workers theoretically available to them unless they first succeeded in satisfying their formidable demand for skilled workers.

Net Additions of Skilled Labour Required

By September 1940:	67.9 thousand=31 % increase
By July 1941:	129.6 thousand=70 % increase

The Committee offered some suggestions about dilution and training but was unable to show how the requirements of skilled labour could be met. Indeed, it did not conceal its conviction that they could not be met.

These sobering calculations were endorsed and emphasised by the Stamp Survey. There seemed no escape from the conclusion that the

¹ Commonly called the Humbert Wolfe Committee.

Government would be compelled to lower its sights. The fifty-five division scheme was adjourned to an indefinite future, and doubts were expressed about the possibility of equipping even twenty divisions by September 1940. It was suggested that the targets of achievement might be brought nearer if the scales of British equipment were lowered, possibly to the French level. Yet the chances of achieving even these more modest objectives soon began to seem very doubtful. The Stamp Survey estimated in May 1940 that the total increase of labour in the engineering industries was likely to be, at most, twenty per cent. for the first twelve months of war, in contrast with the seventy per cent. postulated by the inter-departmental committee as necessary to fulfil the war programmes. This failure was only one side of a sad story, which Lord Stamp summarised as follows: 'The essence of the present labour situation is that a disappointingly small transference of labour to the armaments industry is being attained at the cost of a large amount of damage to the production of other industries that are essential to the war effort.'

It would be a mistake to set high value upon the numerical and percentage estimates that have been quoted in the three preceding paragraphs. There was much guess-work in them. The estimated requirements of engineering labour were not a precise statement of actual or forthcoming vacancies, an enumeration of the jobs for which men were wanted now, or would be wanted within the stated periods; government statistics at that time were not good enough for realistic forecasting of the effective demand for labour, skilled and unskilled, over the whole range of industry or even in the munitions zone. The supply departments were very slipshod in their arithmetic when they calculated that such and such a programme of war production would necessitate such and such reinforcements of industrial labour. In consequence, there was not necessarily any real cause for alarm and despondency when the actual figures of labour intake proved to be lower than the estimated figures of labour requirements. When all this has been said, the calculations of labour requirements that were made in 1939 still retain considerable historical importance. Imperfect though they were, they were the first shaky step in the direction of manpower budgeting. They did moreover give a general impression of the enormous demands upon labour that must eventually be met if the war were to be fought whole-heartedly. And their effect was salutary if they made people feel that the immediate achievement was falling short of the nation's need.

The conviction that economic mobilisation was moving too slowly was not by any means confined to the Government's arithmeticians. To the ordinary citizen, the most discouraging feature of the situation was the continuing unemployment. Until April 1940, the month of Hitler's opening bid for total victory in the first year of war, the

figure was still above the million mark, despite the large number of places—nearly $1\frac{1}{2}$ million by the end of March—left vacant by withdrawals of men for the Services.

The total of unemployment, as reckoned in Great Britain at this time, was of course inflated by including within it workers who were only temporarily and transitionally out of jobs. What was really disappointing in the first six months of the war was the persistence of 'the hard core' of unemployment. However, improving economic activity began to make a real dent in this hard core in the very months when British and Allied forces were suffering disaster on the battle fields of Norway, the Low Countries, and France. From April onwards, the expansion of war work began steadily and progressively to take up the slack of unemployment. Moreover, the political upheaval of early May gave Britain a Government with enough determination and enough popular support to carry through the new manpower policies that national survival demanded.

(ii)

Manpower Policy

The studies pursued by the Committee of Imperial Defence between the two world wars had identified three salient problems of manpower policy: recruitment for the Services, maintenance of a balance between the Services and industry, enlargement and redistribution of the industrial labour force. Under the first two heads, the lessons of previous experience had been well digested and realistically translated into policies for the future; but under the third head there was still, as the Stamp Survey and other critical observers believed, something of 'a gap'.

For the supply of Service manpower, the instrument was military conscription; it was operating even before war broke out.¹ For maintaining a just equilibrium between the Services and industry the instrument was the Schedule of Reserved Occupations. Both these instruments were controlled by the Ministry of Labour: how workmanlike its control of them was during the first phase of the war has already been shown. But for the third great task there was, up to the very eve of the war, no controlling ministry and no instrument of control. Far back in 1922, when the waste and loss of the First World

¹ In June 1939, men born between 4th June 1918 and 3rd June 1919 had been registered under the Military Training Act, passed in the previous month: registrations of men in the other age-groups were made after war broke out under the National Service (Armed Forces) Act, passed on 3rd September 1939. The substantial contribution made to Service strength during the first year of war by volunteers, anticipating their compulsory registration or call-up, should not be forgotten.

War were still freshly remembered, a committee of manpower experts had dared to recommend legal powers of compulsion whereby the Government could 'control and transfer civilian labour according to national needs'; but, at the beginning of the Second World War, nobody who was well-informed thought that organised labour was ready to accept industrial conscription. Some people, as has been shown earlier, argued that drastic administrative control was unnecessary. 'Individualism' would do the job.¹

What were the motives of this individualism, and how would they work? There would be 'the carrot and the stick', the 'push and the pull', the expulsive force of reduced demand in the 'less essential' industries and the attractive force of enhanced demand in the munitions industries. Direct limitation of raw materials supplies would doubtless give some extra power to the 'push' of reduced demand. Unfortunately, the 'pull' of enhanced demand would be limited by the requirements of the Government's anti-inflation policy. Although differential wage rates were attracting labour into Group I industries even before the war, and although differential earnings were operating on top of the wage rates, it was contrary to the Government's policy to permit money incentives to exercise their full natural force. Moreover, the dimensions of the required industrial migration were vast while the time available for carrying it through was short. The administrators and economists who tried, early in the war, to measure the task ahead had no faith that individualism—the uncontrolled personal decisions of millions of British men and women—would be able to perform it.

For the historian, these speculative estimates and general reflections are not enough; he must examine the problem of industrial mobilisation in a specific chronological content. While the Government's experts were producing their frightening calculations of future manpower requirements in the munitions industries and emphasising the insufficiencies of supply in the labour market, the immediate effective demand for labour remained disappointingly weak. As has already been seen, industrial unemployment did not sink below the million mark before April 1940. Up to the fall of France, the main immediate cause of anxiety among economists was the deficient absorptive capacity of industry, not the scarcity of labour.

To this statement there is, however, one important exception. Skilled labour was scarce. This, at any rate, was the constant and urgent cry of the supply departments. They argued that shortage of skilled labour was the main cause of the disappointing expansion of war industry: if only they could find a few tens of thousands of skilled men to fill their urgent vacancies, they would be able to

¹ See above, p. 61, for a statement by a Ministry of Labour official to the Stamp Survey and for the Survey's very critical comments.

absorb unskilled workers by the hundreds of thousands. It is possible that they overstated their case. Skilled labour was not always the one missing factor of production. Sometimes there were scarcities of manufactured materials, for example, light alloys for airframe construction. Sometimes there were shortages of machine tools and other essential plant. Sometimes there were shortages of floor space: up to the summer of 1940, no more than two of the large new ordnance factories were ready to begin production. Managerial capacity and administrative direction must also have been very frequently scarce; it takes time to build up a vast administrative machine and link it effectively with the industrial machine.¹ When all these additional difficulties have been admitted, it still remains true that there was a real difficulty in securing adequate supplies of skilled labour. Proof of the shortage may be found in the misplaced zeal with which departments and firms 'poached' each others' supplies. The Air Ministry confessed and even boasted that it was a poacher. The Admiralty, which believed itself to be most unfairly put upon, denounced the 'stage army of skilled men' which, so it said, was marching about from firm to firm in search of higher earnings. Resentful departments and aggrieved employers called on the Ministry of Labour to do them right.

Poaching is only a symptom; before discussing the palliatives that might have alleviated it, there will be advantage in considering the remedies that might have made it disappear. One remedy would have been to bring about, so far as might be possible, an increase in the total supply of skilled workers. The most direct contribution of the Government towards this end would have been a rapid expansion in the numbers of men passing through its training centres. This need was more than once emphasised in War Cabinet discussions. Nevertheless, as late as April 1940, the training centres were still half empty and the Ministry of Labour was still regarding them as institutions for the rehabilitation of such unemployed workers as could be inveigled into them. It was not until the summer crisis had produced a new Government and a new national mood that the Ministry set itself strenuously to develop the training centres as instruments, not of a peace-time social policy, but of a war-time production policy.

It still remained true that the demand for skilled workers must be met in the main from within industry itself. Employers, labour leaders and the Government were all agreed upon the need for hastening the processes of dilution and substitution of labour, whereby existing skills could be spread more widely and new 'semi-skills' could be employed in mass production technique. To achieve this end, it was necessary to persuade the trade unions to accept a

¹ These problems are examined in *British War Production*.

relaxation of the customary practices whereby they protected the market value of the skills their members possessed. Thanks largely to the benevolent intervention of the Ministry of Labour, a Relaxation of Customs Agreement had been negotiated in August 1939 between the Amalgamated Engineering Union and the Engineering and Allied Employers' National Federation. However, the Ministry of Labour was cautious about taking positive steps to bring into active operation this agreement and any others that might subsequently be modelled upon it. The Ministry declared itself willing to intervene if it were invited to do so;¹ but it was unwilling to jeopardise its good relations with employers or workers by thrusting itself forward into the affairs of industry. It considered that, if any department had to thrust itself forward, it was the Ministry of Supply, which ought to take responsibility for all production problems inside the factories. But the Ministry of Supply refused to take the responsibility. The consequence was that until May 1940 no government authority had been found willing to shoulder the duty of administering a policy which the War Cabinet had explicitly adopted. Yet it was a duty which some authority would have to undertake, sooner or later; for the experience of the previous war had proved that a dilution policy would not work with speed or efficiency unless it were supervised by pertinacious labour inspectors exercising right of entry into the factories.²

Skilled labour needed to be redistributed, not only between the factories, but between geographical areas. Here again there were disputes between the Ministries of Labour and Supply; here again, in consequence, government action was irresolute. The Ministry of Supply and the other war production departments called upon the Ministry of Labour to institute a vigorous policy of transfer, to shift skilled workers not only from factory to factory but from region to region; in short, to bring the men to the jobs. But the Ministry of Labour called upon the war production departments to bring the jobs to the men. It maintained that transfers of labour on a large scale would prove to be unnecessary if only the production departments would make a serious attempt to do two things: first—though it was already rather late in the day—to locate the maximum number of new factories in areas where labour was surplus; and secondly, to make all possible use of sub-contracting and contract-spreading. The Ministry of Labour wanted the Ministry of Supply to use its Area Boards to seek out the little firms which, it believed, would be able to make available for war production not only a lot of useful plant but also a large aggregate supply of skilled labour.

¹ M. of L. Circular of 6th October 1939.

² In the previous war, the Munitions Labour Inspectorate had been under the Ministry of Munitions.

In principle, there was a good deal to be said for these suggestions; but in practice there was no chance of making them effective on such a scale and at such a speed as to do away with the need for a vigorous labour transfer policy. For reasons whose explanation lies outside the scope of this book, the Ministry of Supply was slow in getting the Area Boards to work (not one of them was working effectively when France fell) and was concentrating most of its orders upon the larger firms; it had, moreover, located some of its new factories in districts where labour was scarce. But even if the Ministry of Supply, the Air Ministry and the Admiralty had all been willing to do all the things the Ministry of Labour wanted, there still would have been need for energetic redistribution of skilled labour. To consider one example: no action that the Admiralty could have taken would have altered the location of the shipyards and the manpower problems of the shipbuilding industry. This industry had been particularly hard-hit during the depression. It needed a high proportion of skilled men and under normal conditions it secured them through the apprenticeship system; but during the lean years its inflow of apprentices had dwindled. In consequence, the industry in 1939 had in its skilled labour force an exceptionally large number of very recent entrants, men in the younger age groups which, under the Schedule of Reserved Occupations, were *par excellence* the source of supply for the fighting services. And while it thus stood to lose too many of the skilled men already at work in the yards, the men whom it would need to put in their places—the older skilled workers who had left the shipbuilding districts during the depression and had for the most part secured more remunerative employment in the building industry or elsewhere—would not be easily recoverable. The Admiralty and the shipbuilding firms hoped that the Ministry of Labour, after tracing them through the Employment Exchanges, would help to get them back by paying their travelling expenses and giving them subsistence allowances. The Ministry of Labour refused to give this help; it would do what it could by way of persuasion,¹ but it said that the shipbuilding firms ought themselves to supply the incentives for getting the men back and to carry any exceptional costs arising from the process, recouping themselves if they could from the Admiralty. Perhaps the Ministry was afraid that small concessions, such as the payment of railway fares,² might lead later on to large demands. If it committed itself even mildly to a government-promoted scheme of labour transfer, and the scheme broke

¹ A M. of L. Circular of 9th October 1939 instructed the Employment Exchanges to give priority to vacancies in work covered by priority certificates for materials.

² There was however one notable exception: namely, the agreement negotiated in October 1939 between the Ministry, the employers and the union, for the transfer of dock workers from port to port. The Ministry agreed to advance fares and subsistence allowances.

down, it might find itself called upon to apply compulsion. Neither the Ministry of Labour nor the War Cabinet was ready for that.

It was because private incentive and public policy were achieving too scant success in increasing the supply and improving the distribution of skilled labour that departments and firms began their competitive scramble against each other. Poaching, it was said earlier, is only a symptom of the deeper sickness of labour shortage; but perhaps it would be better, if the medical metaphor is retained, to label it a 'complication', and one hardly less troublesome than the original disease. Poaching is a national danger because it encourages the inflationary spiral and creates anarchical conditions in the industrial labour force. If mobility of labour is necessary in time of war, so also is stability; it is important that workers should be got into the right places but it is also important that they should thereafter stay put. In the war of 1914-18, excessive labour turnover had been if anything an even greater menace than insufficient mobility had been to industrial productivity. Departments and firms had poached on their neighbours' labour supply by much-advertised enticements of higher earnings, special bonuses and concessions, special amenities in the factories and any other inducements that could be thought of. This game of snatch did not always delight even the successful players, for the triumphant poacher of today was always afraid that he would tomorrow be poached upon himself. The Ministry of Munitions had attempted to cure the anarchy by its system of 'leaving certificates', which curtailed the freedom of workmen to sell their labour to the highest and most unscrupulous bidder; but the attempt broke down under pressure from the resentful workmen.¹ From this unhappy experience two contradictory lessons had been deduced: poaching was so great an evil that it must be prevented: prevention was so unpopular that its cost in labour troubles might be prohibitive.

The nearer the Second World War approached, the more did the Ministry of Labour emphasise the second danger. In the middle nineteen-thirties it had seemed ready to sponsor a fairly drastic Control of Employment Bill; but the bill it brought forward in September 1939 was a much milder measure. The Minister asked Parliament to give him power to forbid employers to advertise for labour or engage it without official consent; but he explained that the power would be used only in special cases on a clear demonstration of need. Even these gentle protestations failed to placate Labour M.P.s and the trade unions—although the latter had been consulted in advance. The Control of Employment Act which finally emerged from a stormy debate contained additional clauses which prevented

¹ See p. 27 above.

the Ministry from instituting the control in any industry until it had set going a cumbrous mechanism of consultation, to be followed, in all probability, by a frustrating sequence of individual guarantees, appeals and awards of compensation.¹

The Ministry of Labour issued only one order under the Control of Employment Act. This order referred to certain occupations in the building industry, where the anarchic struggle for labour in the new, and very often remote aerodromes, camps and munitions factories had been recognised even before the war as an evil that would have to be dealt with. The scramble for skilled engineering labour in the munitions industries was not effectively dealt with at this time.² The competitors who were coming out worst in the scramble called upon the Ministry of Labour to take action under the Control of Employment Act; but the Ministry's answer was to call once again upon the supply departments to iron out the discrepancies in their terms of contract and to press ahead with sub-contracting, contract-spreading and all the other measures for bringing work to labour.

Underlying all these departmental hesitations was the deeply rooted fear of stirring up labour troubles of the kind that had been so dangerous during the First World War. That is why responsibility for the really urgent problems of poaching and dilution and labour transfer was so often passed from one department to another and was in the end, more often than not, refused by all. That is why the Ministry of Labour, which was more closely in touch than any other department with the temper of organised labour, so stubbornly resisted every proposal that seemed to tend even directly and remotely in the direction of industrial conscription. The Ministry, in its efforts to understand and to influence industrial opinion and feeling, maintained close contact with the National Joint Advisory Council set up early in the war. In this Council was enshrined the principle of consultation between Government, employers and trade unions—an excellent principle, if only the consultation had produced policies adequate to the nation's need. Of that there were few signs prior to the critical summer of 1940.

Reflecting upon this first period of the war, the historian finds himself oppressed by a feeling of lost opportunity. The training and dilution of labour, for example: how much easier it should have been to find the men and the time for those tasks in the early months of military inaction and sluggish industrial expansion than in the hectic months after Dunkirk, when the B.E.F. had lost all its equipment in France and the R.A.F. was fighting sky battles with aircraft straight from

¹ H. of C. Deb., Vol. 351, Cols. 507-530, 755-797, 907-920. See also 2 and 3 Geo. 6, c. 104.

² For the effective policy initiated by the Undertakings (Restriction on Engagement) Order of June 1940, see p. 305 below.

the factories! Yet the tasks were shirked when they were easy and tackled after they had become hard. So it would seem—but perhaps there is something wrong with the implied definitions of difficulty and opportunity? The consciousness of a million workers still unemployed remained an incubus upon the will to undertake radical action involving co-operation between organised labour, the employers and Government. Problems that seemed easy so long as they were stated merely in material terms proved too difficult for solution when the will to attack them was still lacking. A few months later Mr. Ernest Bevin, as Minister of Labour and National Service in Mr. Churchill's Government of national unity, had the opportunity to do things which his predecessor in the Chamberlain Government, Mr. Ernest Brown, dared not attempt—if only for fear of Mr. Ernest Bevin, the trade union leader. In that first period of the war, Government and people were out of tune with each other, the nation was divided within itself, men and women were divided within their own minds. The nation did not as yet understand its own danger and need.

To these simple reflections the historian finds himself continually returning. If he were to attempt a purely economic interpretation of British economic history in this decisive year, it would break down. By May, when the new Government took office, the graphs of material progress had already become more encouraging: this was important but it was not the most important thing. It was the lifting up of hearts among the people, the miracle of resurgent patriotism and the magic of inspired leadership that made everything different.

The Ministry of Labour now took with both hands all the specific responsibilities which hitherto it had been trying to fob off upon other departments. And on 22nd May 1940 it received, by Act of Parliament and by will of the people, the ultimate, all-embracing power of industrial conscription. The Emergency Powers Act passed on that day entrusted to the Government unrestricted power 'for requiring persons to place themselves, their services and their property at the disposal of His Majesty'.

CHAPTER VI

TOWARDS A LEVEL ECONOMY

(i)

Introductory

ALTHOUGH the mobilisation of economic resources for war was still at the beginning stage in the spring of 1940, it had already unsettled the civilian economy. Eleven years earlier, in their memorandum on *The Course of Prices in a Great War*, the Treasury had explained the unsettling process: increased demands for goods of all kinds from government and private sources, pitted against a diminishing supply, would drive prices upwards. The Treasury had also prescribed the remedies—drastic taxation, control of prices, profits and wages, consumer rationing. But, as Chapter II related, the different parts of this comprehensive policy became separated as war planning grew increasingly hectic. Some items were scarcely considered at all, and the different threads of policy were never knit firmly together.

The intentions of 1929 had shrunk and when the Chancellor of the Exchequer, introducing his first war budget, spoke of the economic purpose of the Government, it was in much more general terms. 'We are aiming,' he said, 'at maintaining a level economy in which prices and profits and remunerations are kept as steady as war conditions will allow and in which the flow of such goods as are available for civilian consumption is kept in regulated supply.'¹ The phrase 'a level economy', is too vague to be taken very literally; but it suggests the wide variety of inter-related problems with which this chapter will concern itself. How far, for example, was the purchasing power of money preserved, and what methods were used in pursuing stability of 'prices, profits and remunerations'? How did the Government ensure that the civilian economy did not absorb resources needed for the war, and how was the supply of civilian goods regulated to prevent the depletion of stocks and unfair distribution? Did the 'level economy' become in any marked degree a levelling economy, in which control of the general level of money incomes was reinforced by measures to redress the balance between different classes of income on the principle of 'fair shares'?

¹ H. of C. Deb., Vol. 360, Col. 84 (23rd April 1940).

With the stern lessons of 1914-18 behind them, the Governments of 1939 to 1945 could be expected to achieve much greater success in maintaining a level economy. And so indeed they did. The following table tells part of the story:

	Whole-sale Prices*	Cost of Living Index	Wage Rates		Whole-sale Prices†	Cost of Living Index	Wage Rates
	Av. Jan. July 1914= 100	July 1914= 100	July 1914= 100		Aug. 1939= 100	Sept. 1 1939= 100	Beginning Sept. 1939 = 100
Jan. 1915	117	110-115		Jan. 1940	128	112	103-104
July 1915	129	125	105-110	July 1940	142	121	112-113
July 1916	158	145	115-120	July 1941	156	128	122
July 1917	214	180	135-140	July 1942	163	129	131
July 1918	233	205	175-180	July 1943	167	129	136
July 1919	250	210	210-215	July 1944	170	130	143
July 1920	308	252	260	July 1945	174	134	149
				July 1946	180	132	161

* Statist Index. The source of other 1914-20 figures is A. L. Bowley's *Prices and Wages in the United Kingdom 1914-20* (O.U.P. 1921).

† Board of Trade Index. The source of other 1940-46 figures is the Central Statistical Office.

During the Second World War price questions did not become, as in the later stages of the 1914-18 war, a storm centre of economic stress, social discontent and political controversy. But the figures also suggest that the early months of the Second World War gave no promise that the experience of the First World War would not be repeated; if anything, the spurt of wages and prices in 1939 and early 1940 seemed greater and more rapid than in the corresponding months of 1914-15. Not until the middle of 1941, it seems clear, was the objective of a level economy securely gained and held.

The year 1941 was certainly a watershed in the conduct of the war, producing firm policies of taxation, of free and forced saving, of price control, of rationing and control of civilian supplies, together with exhaustive discussions of wages policy. In 1941, too, these problems were considered as parts of one another. The whole economic situation was illuminated in that year by the new statistical analysis contained in the first white paper on national income and expenditure. In the early months of the war, on the contrary, the statistical information essential for a comprehensive understanding of the national economy, so far from being expanded, had been considered a luxury to be curtailed.

The Government was not well equipped, during the first nine months of war, to measure its financial tasks. But the historian can use in retrospect the technique of later days.

The figures of prices and wage rates already quoted are not a sufficient test of economic stability. In fact, although prices and wages

rose rapidly at the beginning of the war, the danger of inflation was only slight. The progress of war production was halting and government war expenditure showed no startling rise. In February 1940, it averaged £34 millions a week compared with about £20 millions in September 1939; part of the increase, moreover, was due to the rise in prices. In June 1940 weekly war expenditure had risen to about £52 millions; but even this figure was low compared with £69 millions in June 1941. In comparison with the figures of 1941 and afterwards, the demands of the Government in 1939-40 were small—although they were, of course, a great increase over pre-war days.

The Government's increased demands for war could be met from three sources—from an increase in the national output, from capital resources or from a diversion of the output normally devoted to personal consumption. Unfortunately, national income white papers cannot tell us how much of the Government's increased expenditure was met from each source. In the first place, no separate figures exist for the rather awkward nine months' period up to Dunkirk. In any case, the white paper figures have serious deficiencies. Table I(a) in the Statistical Summary¹ shows the composition of the national expenditure in each year. But it is impossible to measure from this the real rise in national output from year to year because the figures do not allow for the rise in prices. It must also be remembered in using the figures that the estimates of domestic non-war capital formation lack the firm basis of direct investigations of investment: they are no more than a 'residual' item obtained by subtracting all the other elements of national expenditure from an independent estimate of the total.²

However, it is clear that in the early months of the war much of the Government's increase in expenditure could be met from higher output—the absorption of the unemployed and an increase in the hours of work. As we saw,³ disinvestment abroad also made a considerable contribution, and at home, privately-owned stocks and capital equipment were already being run down. While there existed these other untapped sources of war finance, the pressure to reduce personal consumption was not yet very great. And since the demands of war could at this early stage be met with such small inroads upon personal consumption, the dangers of inflation were only slight; very little seems in fact to have been let loose upon the country.⁴

¹ See p. 75, above.

² See explanation in Cmd. 6784, p. 7.

³ Chapter IV.

⁴ One early sign of inflation is depletion of stocks. Over the whole of 1940, total disinvestment at home was estimated at only £145 millions (Table 1(a) on p. 75), i.e. running down privately owned stocks plus under-maintenance of capital equipment. This is very small when it is remembered that Britain started the war with stocks of goods in process, in transit or awaiting sale estimated at £1,800 millions.

In the light of our fuller statistical knowledge, we may in retrospect feel some surprise at finding the Government and informed public opinion in those early months perpetually preoccupied with inflationary dangers, and with erecting barriers against their insidious approach. This anxiety, however, arose in part from a general awareness that the war effort was bound to grow at an increasing speed and that it would, sooner or later, drain the stagnant pools of unemployment. Even before full employment had been achieved, the Government's policies towards finance and the civilian economy were of great importance. Incomes were rising, if not very steeply, and imports were falling. 'Cash' and 'carry' were scarce commodities and the stock position in many foodstuffs and raw materials was causing acute concern. It was important to keep civilian demand in check. Negligence and mistakes in this early period would have vastly complicated the task of controlling inflation when in later months it became a very real menace.

On the outbreak of war, the Government was confronted with a large initial rise in prices, and the threat, so it believed, of a vicious spiral. The dimensions of this rise in prices are shown in Table I(e) on page 77. The figures also show that the main cause was the increase in import prices. On the outbreak of war, the value of the pound in terms of dollars fell by about fourteen per cent., which meant that nearly sixteen per cent. more in terms of sterling had to be paid for imports from the 'hard' currency countries—not, of course, for those from countries in the sterling area. Moreover, world prices were very low at the outbreak of war and under its impact they turned upwards. The rise was at first largely speculative and the hard facts of a world shipping shortage and a blockade were for some time obscured. Some prices leapt alarmingly—wild speculation in Calcutta, for example, almost doubled the price of jute there in the last two months of 1939. Other prices reflected more truly a real increase in demand—crude oil prices rose by twenty-five per cent. in the first month of war. Britain suffered further because normal sources of supply such as the Baltic were cut off and shipping difficulties forced the Government to buy in the dearer markets.

Faced with a world rise in prices, government departments often proved their skill as buyers. Sometimes they reaped benefits from pre-war purchases: in the spring of 1939, for example, the Food (Defence Plans) Department had secured the Norwegian whale oil catch at a favourable price even though it was bidding against the Germans. But such enterprise had been all too rare, and stocks of some important commodities were low. Nevertheless, once war broke out, government departments refused to be stampeded into paying panic prices, firmly insisting that the supplies for which they were bargaining were only marginal. A large contract for Canadian

wheat, settled on the eve of war at the market price, enabled the Government to abstain from buying any Canadian wheat at all for some weeks after the outbreak of war, when it considered the new Canadian quotations were too high. Not until the summer of 1940, when the market was weaker, did the Government enter into the first of a series of bulk contracts at a price well below that previously suggested by the Canadian Government in the autumn.¹ In general, however, long-term bulk purchase arrangements for Empire crops such as wool, cocoa and sugar were successfully made at the beginning of the war at prices fair to both sides.

While commodity prices in the country of origin rose, their prices to British importers rose still higher. For shipping costs rose immediately. Marine insurance was more expensive, war-risks insurance was introduced, convoys involved delays, and merchant seamen merited higher wages. The Mercantile Marine Department had thought, before the war, that in spite of such increased costs 'the general surplus of shipping might tend to lower pre-emergency freight rates'; but, in fact, shipping became scarce and freight rates rose by more than costs. The Mercantile Marine Department had not doubted that tramp freights at least would have to be controlled if, contrary to expectation, they showed a tendency to rise. Control of tramp freights was, therefore, soon introduced. The controlled rates had to be flat rates,² and were based on peace-time rates in the various trades, adjusted for increased war costs. But increased war-time expenses varied enormously, and if all the ships were to be kept in commission, the controlled rates had to be fixed high. Government control of the much more complicated liner rates was not even attempted, and an unofficial scheme run by the Liner Conferences came up against the same difficulty of fixing rates to cover marginal cases. Meanwhile, rates for neutral shipping were not controlled at all, and the shipowners charged what the traffic would bear.³

The relative importance of the causes of the rise in import prices varied from time to time. In the first half of 1940, as it became clear that the shortage of shipping and the blockade were carving a gulf between countries of demand and countries of supply, world wholesale prices rose much less rapidly than in 1939, or actually fell. Shipping costs continued to rise in 1940 but the initial leap was not, of course, repeated; with the introduction of general requisitioning in January 1940 rates of hire were fixed by direct

¹ See R. J. Hammond's *Food*, Vol. I, in this series (H.M.S.O., 1951).

² This accentuated the difficulties of partial shipping control. Flat rates offered no incentive to undertake unpleasant jobs such as shipping ore from Narvik in winter.

³ e.g. the official Danish freight index rose by 174 per cent. between August and October 1939. The neutral ships were therefore employed as little as possible.

negotiation between the Government and the shipowners.¹ The causes of the rise in import prices also varied in importance from commodity to commodity. To cite some food items: higher f.o.b. prices were largely responsible for the increases in Canadian bacon and Canadian and New Zealand cheese: freights and insurance were far more important for meat and rice: as for wheat, the increases of price in this period must be assigned in fairly equal proportions to each of the main causes.

On top of the heavy increases in import prices, domestic prices were also being pushed up. There were A.R.P. measures to be paid for and increased insurance charges. In some industries, overhead costs were covered by higher prices on a decreased turnover.

The Government had not wholly foreseen this large initial price rise. Indeed, as late as July 1939, representatives of the Board of Trade had informed the Stamp Survey that it would be unwise to assume that there would necessarily be a sharp increase of prices of uncontrolled materials on the outbreak of war. Action or inaction by the Government made the increases sometimes greater than they need have been—for example, the tax on sugar was increased in the first war budget and the price of jute was left uncontrolled—but, in general, the Government was powerless to prevent this first upward leap of the price level. Upon its shoulders fell the responsibility for preventing the rise from perpetuating itself.

(ii)

Financial and Price Policies

The first upward swing of prices was not a cause for alarm provided it could be stayed; for it was one way of restricting demand at a time when supplies from abroad were falling. The danger lay in the inevitable and vain attempts of incomes to frustrate a reduction in the standard of life by keeping pace with price increases: since supplies could not be increased, these attempts would drive prices continuously higher. The consequences would be social injustice, discontent and an immense complication of the budget problem.

These were the dangers that had been foreseen in the Treasury's pre-war memorandum on *The Course of Prices in a Great War*. Little of the admirable theory of that paper, however, had been worked out into policies. The problem was, broadly, to curtail demand. The Government's desire was to keep spendable incomes

¹ See *Memorandum on War Time Financial Arrangements between H.M.G. and British Ship-owners* (Cmd. 6218).

down. But policies designed for this purpose might contradict each other; for example, a rise in the cost of living would occasion wage demands; but artificially low prices would encourage consumption. Rationing was part of the answer to this contradiction; throughout this early period of the war, however, it was considered only in relation to the stocks of various vital commodities and not to the economic problem as a whole. Not until the summer of 1940 was the problem clarified by a firm policy of subsidising rationed goods within the cost-of-living index and taxing goods outside it. During the first months of war, the Government moved forward only tentatively.

While the Government and persons with some knowledge of economics approached the inflationary problem in terms of control of income, many people confused the disease with one of its more spectacular symptoms. 'No profiteering', they thought, meant 'no inflation'. From the natural repugnance that war should bring windfall gains and from the bitter memories of 1914-1920 there had developed an obsession about profiteering. The Government was impressed by the depth of this feeling and much influenced by it when preparing the first measures of price control. This was certainly true in what may be broadly called the field of distribution—the sale of raw materials, foodstuffs and retail goods.

It had long been realised that in war time the supply and distribution of scarce and vital materials and foodstuffs could not be left unregulated. Control over supplies by government purchase or licensing, control over distribution and control over prices must all be established. The Ministry of Food and the Raw Materials Department both had plans ready for controlling strictly essential materials when shortages of them were inevitable. They had also forearmed themselves against an initial bout of profiteering, by preparing orders to freeze maximum prices at the levels current at the outbreak of war, or by negotiating agreements in which trade associations pledged themselves not to raise prices without consulting the minister concerned. However, it was not long before this policy of maintaining pre-war prices as long as possible was challenged. It threatened, said the Treasury, to reduce supplies and stimulate demand—dangers which should not be incurred merely for a vague desire to allay public sensitiveness about profiteering. Following this warning, the Economic Policy Committee formulated in October 1939 new principles to guide departments in fixing controlled prices. Maximum prices should henceforward be advanced to cover replacement costs. Government trading, moreover, must avoid loss except in exceptional cases: it must in appropriate cases aim at a substantial profit.

All the same, the initial price freezing orders had, so far as they went, been useful; they had prevented an undesirable outbreak of

profiteering while the Government was assuming control of materials and before it had adopted a general price policy. However, the price freezing orders did not cover all raw materials and foods: prices were sometimes allowed to rise uncontrolled—for example, those of home grown oats and barley—and later it proved very difficult to drag them down again. Moreover, no plans had been made for controlling the prices of retail goods and checkmating profiteering retailers. Here, the Government at first put its faith in publicity and the voluntary co-operation of traders; but the continually soaring prices of such new necessities as sandbags, torches and blackout cloth soon convinced ministers that they would have to take special measures to fend off the danger of public resentment and protest.

Their special measures emerged as the Prices of Goods Act. This, unlike the 1919 Profiteering Act, did not tackle profits directly but aimed at them through control of prices. For a specified list of manufactured goods,¹ no increases in prices were allowed above those ruling on 21st August 1939 unless justified by proved increases in cost; alternatively, the Board of Trade might specify 'permitted' prices. Enforcement of the Act was entrusted to a Central Price Regulation Committee and local committees which investigated complaints from the public. The Act came into force on 1st January 1940, with a very limited list of price-regulated goods;² the list was, however, greatly widened in May. The defects of the Act were obvious from the outset. Since a reduced turnover was admitted to be a cause of increased costs, and, in consequence, valid ground for claiming price increases, the effect of the Act was not so much to keep prices down as to keep profits stable. Then there was the difficulty of proving the basic price and the possibility of evading it by changing quality; moreover, enforcement beyond the retail stage was almost impossible. The Act was not wholly a failure: supported by the good sense of retailers and the conditions of trading at that time, it did prevent undue price rises at the retail stage; but as a control over manufacturers it was largely ineffectual.

The principles underlying these attempts to curb profiteering at the distribution stage were on the whole simple. In these early months, the Government was concerned not with the actual level of profits but with excesses over pre-war earnings and with the fear that high prices charged to consumers might become a cause for complaint.

When, however, the Government came to fix prices and profit margins for the production of vital materials, foodstuffs, and munitions, quite different problems arose. High profits in war time were distasteful; but since the Government could not itself undertake

¹ Powers under the Act were only given to the Board of Trade. The Ministries of Food and Supply controlled prices under the Defence Regulations.

² At first only goods within low price ranges were included.

direct responsibility for all the necessary increases in production, the profit motive had to be respected because of the incentive it provided. But, in fixing prices to allow reasonable profits and incentive to the many, it was difficult to avoid giving excessive profits to the few. In peace time, one of the traditional arguments in defence of the profit system—weakened though the argument may be by the growing imperfection of competition—is that profits are the lot of the progressive and losses of the backward. In war time, this argument may become altogether invalid; for the poor land, the seams of low grade ore, the backward coal-mine must now be positively encouraged. Unfortunately, the Government never treated this dilemma as a problem of general economic policy. Departments dealt with each case as it arose; such cases as came before ministerial committees were dealt with, each on its individual merits. The invariable tendency of policy was to approve prices that would cover the high-cost men and to leave the profits of the low-cost men to the small mercies of the Inland Revenue.

This problem has already been briefly discussed in relation to shipping freights. It arose also in the raw material industries—steel, for example, and home-produced iron-ore. It made itself most acutely felt in the discussions about prices and profit margins for domestic agriculture. Even on the pre-war assumptions about shipping, there had never been any doubt that additional land must be brought into cultivation. The first step of encouragement had already been taken in June 1939, with grants of £2 per acre from the Ministry of Agriculture for ploughing up grassland. After that, the Government looked mainly to general price increases to provide incentive. Its theory of agricultural price policy was that 'the price paid for home supplies will be the best price obtainable having regard to the necessity to provide farmers with adequate incentive to increase production'.

During the autumn and winter of 1939, therefore, the main object of agricultural price policy was to cover farmers' increased costs and to stimulate production by allowing them a general increase in their incomes. There was almost no sign of the principle that later became so important—that the incentives should be discriminating and encourage crops according to an order of priority dictated by food policy. Even after the comfortable anticipations of an easy shipping situation had been shattered in the winter months of 1939-40, it was still for some time supposed that the cuts in the food import programme would be made on animal feeding-stuffs only. More of everything and particularly of animal feeding-stuffs became, accordingly, the watchword of agricultural policy. This meant incentives all round, with the size of the incentive determined largely by the bargaining power of the different farming sections.

Discussions on farm prices in the early months of war centred therefore upon the level of profits for various products considered individually. Discussion bred controversy. The first difficulty arose in December 1939 in fixing new prices for fat cattle.¹ Should the original November prices simply be adjusted for increased costs or should they be raised further as an additional incentive? Whereas the Agricultural Departments² wanted to go a considerable distance towards meeting the claims of the National Farmers' Union, the Ministry of Food and the Treasury thought that the guaranteed market and other advantages of the government livestock scheme provided incentive enough: besides, the proposed price increases might encourage farmers to favour beef instead of milk. In the end, it was agreed that the Agricultural Departments' claims for the farmers should be met in part.

A variety of unco-ordinated decisions on individual products produced a price structure which was, in the view of its official critics, 'haphazard and largely irrational'. In the dangerous summer of 1940 it was assuredly an unfortunate legacy; for the urgent need then was not merely to stimulate the farmers to do their utmost but also to establish a definite order of priority for crops. In June, an increase of the minimum agricultural wage to 48s. per week reopened the whole question of prices. Between officials and between ministers, opinions diverged widely both over the total size of the incentive to be paid and also over its division between the various crops. The Inter-Departmental Committee on Food Prices³ concluded, after an elaborate investigation of the facts, that the increased return per annum already obtained by farmers would cover by more than £12 millions their increased costs to date, *plus* the new increases in wages: nevertheless, the pledges to increase prices so as to match increased costs would have to be fulfilled and the £14.9 millions represented by the new wages bill would have to be covered. The Committee went on to recommend that the opportunity should now be taken of adjusting prices to the order of priority in food policy: since it was impracticable to grant some commodities no price increase at all, an effective rearrangement of incentives would mean giving farmers an increase, not of £14.9 millions, but of £20 millions.

The Agricultural Departments found these conclusions not wrong but quite irrelevant. 'We cannot afford', they said, 'under present conditions to run any risk at all of recrimination, uneasiness and

¹ A schedule had been drawn up in November on the assumption that the Ministry of Food's Livestock Control Scheme would be introduced. Delay in authorising meat rationing postponed the introduction of the scheme until mid-January. Prices were temporarily decontrolled and new prices had to be fixed.

² i.e. The Ministry of Agriculture and the two Departments of Agriculture for Scotland and N. Ireland.

³ This Committee was formed during the autumn of 1939 and was composed of representatives of the Treasury, Ministry of Food and Agricultural Departments.

discomfort on the home food front.' They presented a scale of prices which involved a total increase to farmers of £34·5 millions instead of the £20 millions that had been proposed. Moreover, their scale maintained existing prices ratios and thus perpetuated an order of priority—oats, eggs, pigs, fat cattle, wheat, sheep, milk, sugar beet and potatoes—that was largely opposed to the accepted food policy.

In June the whole question was referred to the Lord President's Committee and a compromise was reached. The Agricultural Departments' figures were accepted for the 1939-40 season but the 1940-41 schedules were to conform to the order of priority of foods laid down by ministers. The Government publicly reserved to itself the right to vary prices up *and* down, and in future farmers whose profits exceeded a stated amount were no longer to have the option of being assessed for income tax under Schedule B.

It is true that the farmers responded to all their financial incentives. By the middle of 1941 there were nearly four million more acres under crops in the United Kingdom than there had been in mid-1939. Although the crops that had been sown were not always the ones that the nation most needed, the total achievement was a great one.

All the same, if the policy of financial incentives had been applied with similar generosity to all the other sections of the population who were vital to the war effort, the war economy might well have become unmanageable. The Minister of Food had stated the Government's policy quite frankly in the House of Commons in February 1940 when he said: 'In dealing with home produce we have not proceeded upon the basis of paying the home producer the very minimum that is payable. We have sought to give such a price as will encourage his further efforts.' Whereupon he was asked whether the same argument about inducement to production applied to munitions?¹ The answer was that it did not. Indeed, the problem was very different. Munition contracts had to be placed for new weapons so that there was little experience about costs. Except for some general stores which, though numerically preponderant, were small in value relatively to armaments, prices had to be fixed with individual firms. Moreover, while the public were never very interested in farmers' profits—they had so often been conspicuously absent—they maintained the keenest watch over armaments profits. The problem was to devise a form of contract that would both exercise the rigid control over profits that public opinion demanded and also give the contractor a sufficient incentive to efficiency and economy.

No such form of contract had been found when war broke out, and departments went on in their pre-war ways. The Air Ministry and the Admiralty upheld as far as possible 'fixed price' contracts. At

¹ H. of C. Deb., Vol. 357, Col. 538 (8th February 1940).

the earliest practicable stage of production they negotiated firm prices which were usually based either on technical costing or on comparison with the previously ascertained costs or tendered prices of the most nearly similar stores. Theoretically, these prices would provide the maximum incentive to keep costs low: but in reality fixed prices frequently had to be settled when production was well advanced. Then they did not differ greatly from the methods of the War Office and the Ministry of Supply, which clung to various forms of contracts based on post-costing plus profit, usually with a maximum price as a nominal safeguard but with little other financial incentive to efficiency. Efforts to extend the number of effective fixed price contracts through all the supply departments were hampered by the general uncertainty about the future trends of costs during the war. This was partly offset by special clauses by which contract prices would vary in accordance with changes in wage rates and in the price of certain materials. A more serious obstacle was the shortage of accountants. This delayed the estimation of overhead rates and often deprived departments of knowledge of very recent costs of production which they could have used as a basis for the negotiation of fixed prices. There was a similar shortage of technical costings staff. The traditional fear of parliamentary criticism of excessive profit died hard even with the introduction of E.P.T. It was a long time before this fear was replaced by the recognition that, of two contractors working in exactly similar conditions, the one who made the greater profit served the country best since he produced the same results with less expenditure of national resources.

This same conflict between incentives to efficiency and the prevention of profiteering was resolved quite differently in the Government's financial agreement with the railways. The negotiations had been started before the war on the assumption that, as in the 1914-18 war, there would be a government guarantee of net revenue. From long discussions between the Treasury, the Ministry of Transport and the railway companies there emerged the agreement which was published as a white paper in February 1940.¹ The railways were guaranteed a minimum annual revenue of £40 millions (the average net revenue of 1935, 1936 and 1937) and, in order to provide the incentive to efficiency that had been absent in the First World War, they were permitted to keep any further revenue up to £43½ millions, and half of any further excess up to £56 millions. These provisions were severely criticised at the time² as over-generous to the railways, which were, it was said, benefiting from special war

¹ *Railways (Government Control): Outline of Financial Arrangements*, Cmd. 6168 (February 1940).

² H. of C. Deb., Vol. 357. See generally Cols. 621-728.

traffic and the handicaps imposed on their road competitors. There were also administrative and economic objections to the agreement; for unlike its 1914-18 predecessor, it provided that government traffic would be paid for and railway charges raised to match increased costs. From 1st May 1940, rail charges were raised by ten per cent.

To reinforce all the specific measures for dispelling public suspicion about profiteering there was always the excess profits tax. The desirability of some tax analogous to the E.P.D. of the earlier war was not seriously disputed; argument centred rather on its most effective height. At the outbreak of war, a 60 per cent. E.P.T. was imposed, but did not unduly impress public opinion. In May 1940, the spirit of the day was reflected in general welcome to the announcement that the tax would be increased to 100 per cent.; in such grave times it was thought that it would not encourage extravagance and wasteful production.¹

All these profit problems had considerable economic importance. Since profits could in the main be mopped up by taxation, inflation of profits was unlikely to lead directly to any serious inflation of spendable income; but the profits allowed to farmers influenced food prices, subsidies and cropping programmes, and the degree of profit incentive permitted by methods of contracting or E.P.T. produced effects upon the efficiency of production. Most important of all, however, was the psychological effect; for public suspicion that private firms and individuals were harvesting rich profits would have nurtured demands for increased wages.

Wages and salaries were, after all, a more important part of costs. They also formed the largest proportion of the national income (over sixty per cent. in 1938). Moreover, wages were more likely to be spent; whereas profits were more likely to be saved. For these and similar reasons the pre-war planners had always underlined the special importance in anti-inflation policy of holding wage rates steady. Their early enthusiasm for direct and central control of wages had been overpowered by the formidable political difficulties: all the more need, therefore, to get the best possible value from indirect impediments to wage advances. Keeping profits down would help to keep wages steady. The best help of all would be to keep the cost of living down.

Unfortunately, the pre-war plans for food and raw materials control proved powerless to prevent a rapid initial rise in the cost of living. The inevitable pressure for increased wage rates quickly followed. First (and most important) came the coalminers in

¹ H. of C. Deb., Vol. 361, Cols. 564-565 (29th May 1940). 100 per cent. E.P.T. was part of the property *quid* for the labour *quo* in the Emergency Powers Act, 1940. See Chapter XII, p. 340, below, for criticisms of 100 per cent. E.P.T.

October 1939. Their wages were normally regulated not by the cost of living but by the owners' profits from the sale of the coal: despite this, the question of a wage increase came up suddenly at a meeting of owners and miners' leaders. The owners, without consulting any government department, offered an immediate wage increase, related in the main to the rise in the cost of living, on condition that they in their turn received the Government's permission to raise the price of coal. Here indeed was a nightmare of the vicious spiral; the cost of living had risen; therefore coalminers would get more wages; therefore the price of coal would rise; therefore—since coal was a noticeable item in the cost of living—the index would rise still further. But even more frightening to the War Cabinet was the prospect of having to fight a battle against a strong trade union. The War Cabinet had, moreover, been advised that the present miners' leaders were 'a relatively reasonable set of men' who should be helped to preserve their authority. It decided to authorise negotiations for an increase of wages, provided the increase was kept as low as possible, that it was merged in any subsequent increase which should become due under the normal wage arrangements, and that it was granted, ostensibly, on grounds other than the rise in the cost of living. Industrial peace and a level economy were apparently two masters whose service was incompatible. The Government had chosen industrial peace.

Coalmining wages were only a beginning. Early in November the Stamp Survey noted with alarm how many wage increases had been made and how many more were being demanded. These attempts of wage-earners to safeguard their standard of living might for the moment be justifiable; but they could not long be reconciled with the vast war effort that lay ahead. The Survey returned to the principle of direct wage control; it urged the Economic Policy Committee to promote a system of centralised review and authorisation of wage changes. But the objections to this policy were still just as strong as they had been in the later days of pre-war planning. Ministers, and in particular the Minister of Labour, were impressed by the practical difficulties, and possessed by the fear of creating industrial discontent through disturbance of the delicate industrial negotiating machinery built up over so many years. They believed that a central tribunal set up to control wages would soon lose its authority. Would it not, in any case, produce that very result which it was so desirable to avoid—the regular review of wages on a cost-of-living basis? Ministers agreed that they must, instead, or anyway at first, try to educate the trade union leaders and remove from their minds the expectation that rises in the cost of living would be met by money increases to preserve real wages. Meanwhile, the problem was becoming one of more than national importance. In conversations

with the Chancellor of the Exchequer, M. Reynaud had referred pointedly to the very different French policies over wages and hours of work and had suggested that the British ought to show a similar readiness for sacrifice.

At the next meeting of the National Joint Advisory Council, on 6th December, the Chancellor initiated the process of education. He enunciated what later became familiar doctrine—the immensity of the problem of war finance, the need to do without things, the impossibility of relieving shortages by giving people more money, and of course the principle of the vicious spiral. But in December 1939 this was strong, unpalatable doctrine. The Chancellor diluted it. It would be going too far, he said, to imply that a change in prices was no ground at all for reconsidering salaries and wages. There was need for some standard of the reasonableness of demands that 'would do justice without setting a spiral in motion. Just what it is I could not at the moment say, but there ought to be a slowing down of the *tempo*.' Even thus qualified, the words of wisdom fell on stony ground. The General Secretary of the T.U.C. said that the workers would repudiate leaders who asked them to accept a decline in their standard of living. All he could offer was that the trade union movement would, provided it received certain assurances, encourage with all its power the voluntary savings movement. Ministers were disappointed; but they did not despair. The good will of the trade union movement was essential to industrial peace, and since the T.U.C. would accept no general principle governing wage increases, the Government must put its trust in intensive popular education. The T.U.C. had already agreed to discuss the problem with some economists.

So delicate, however, was the ground on which the Government was treading that even its campaign of popular education was never launched. Meanwhile wages continued to rise until a second wage cycle seemed to be revolving. What might have been can rarely be statistically measured and it is therefore impossible to assess precisely the importance of two forces which helped to keep wages down. In December 1939, the Keynes plan for compulsory savings appeared¹ and became a focus for economic discussion by all classes. The Ministry of Labour rated its educative value high and felt that though the T.U.C. leaders could not imperil their own authority by admitting there should be no wage increases, they were hanging back in making demands. Still more important in restraining wage demands was the decision to subsidise the cost of living.

Changes in the cost of living had long been measured by the official cost-of-living index which, imperfect as it was, could not have

¹ J. M. Keynes, *How to Pay for the War* (Macmillan, 1940). The plan was originally put forward in three articles by the author in *The Times* during November 1939.

been abandoned without raising deep suspicion. As the Stamp Survey emphasised in November 1939, anything that could be done to keep down the prices of the goods and services covered by the index would both ease the strain of administering a consistent wages policy and directly safeguard the lower income classes. What were these goods and services? There were in fact five groups—rent (seventeen per cent. weight), food (fifty-three per cent.), fuel and light (nine per cent.), clothing (sixteen per cent.) and miscellaneous (five per cent.).¹ The prices of the four main groups moved as follows:

Cost-of-Living Index

1st September 1939=100

	Food	Clothing	Fuel & Light	Rent	All Items
1939 September	100	100	100	100	100
October	109	107	101	100	106
November	112	113	103	100	109
December	114	118	107	100	112
1940 January	114	120	110	100	112
February	117	125	111	100	114
March	117	128	113	100	115
April	114	131	113	100	115
May	115	135	114	101	116
June	114	137	116	101	117

The Government's success in controlling the groups clearly varied. Rent control was extended immediately after the outbreak of war² and covered about ninety per cent. of the unfurnished houses in Great Britain. Increases of coal prices were mainly governed by wage increases and had to be agreed by the Government.

Food, with such a heavy weight in the index, had a special importance. The initial rise in price for imported and home-grown food has already been explained. In November 1939, food prices seemed about to rise still further. If the Ministry of Food were to cover its costs, prices of bread, flour, meat, milk, butter and cheese must be raised, and the milk industry was asking for higher prices. These prospective increases would add another 12.2 points to the food index and 7.4 points to the general cost-of-living index; government losses in the absence of these increases were estimated at £60 millions a year. This discovery could hardly have come at a more unfortunate moment. For the trade union leaders were pondering the Chancellor's words about stabilising wages and a sharp rise in food prices would heavily prejudice their conclusions. Ministers agreed, therefore, that Exchequer subsidies should temporarily prevent appreciable rises

¹ These are the weights appropriate to the use of 1st September 1939 and not 1914 as the base year.

² The Rent and Mortgage Interest Restrictions Act 1939 came into force on 9th September 1939.

in the price of controlled foods. The Treasury emphasised 'temporary'. It was strongly opposed to any permanent food subsidies, such as that for bread in the earlier war, and considered 'that at the end of (say) six weeks, a series of upward changes in prices should be begun'.

The Treasury was not quite sure whether subsidies were a defence against inflation or one of its attacking forces. There was even talk that subsidies would be the last straw upon the Exchequer's back and that they might start an uncontrollable inflation. But the subsidies could not be lightly revoked. January 1940 found the Economic Policy Committee submitting a report to the War Cabinet on the possibility of stabilising the prices of staple commodities. Stabilisation of the prices of staple foodstuffs, the report said, must go on: but it would be unwise to attempt to secure in return an undertaking that wages would not be increased, since the trade union leaders could not guarantee fulfilment of the bargain. The War Cabinet accepted this advice. It agreed that the Chancellor should publicly announce the Government's subsidy policy, and, without formally linking prices and wages, make it clear that wage claims based on the cost of living would not be justified. However, the policy would need to be reviewed after four months; for, said the Chancellor, 'if the Government were so ill-advised as to enter into a commitment on this subject without a limit of time, there would be nothing to prevent the cost mounting until it reached figures completely outside our power to finance'. The Chancellor made his statement in the House of Commons on 31st January.¹ It created a deep impression. The Government had made its most significant contribution towards a level economy.

When the War Cabinet agreed to extend food subsidies, it also directed that the provision of standard clothing should be studied. For clothing prices, with their weight of twelve per cent. in the cost-of-living index, were still rising steeply. They were controlled only by the Prices of Goods Act which, in spite of higher pretensions, never rose above an anti-profiteering measure: indeed, while only the cheaper types of essential articles were covered by orders under the Act,² manufacturers were encouraged to turn increasingly to the production of uncontrolled unessential clothing. Yet, on the eve of war, officials of the Board of Trade and the Treasury had understood the methods of effective price control. They had agreed then that the production of standard articles was the only way of ensuring reasonable supplies of necessities at prices not unduly above the pre-war level. In October 1939, Lord Woolton³ made much the

¹ H. of C. Deb., Vol. 356, Cols. 1154-1159.

² Price limits were abolished in May 1940.

³ Then a private person; shortly afterwards he became director of Army Clothing Supplies.

same suggestion to the President of the Board of Trade. It was, however, only in the case of clothing that the scheme reached serious discussion.

Several variations of a standard clothing scheme were considered. After a good deal of discussion, the Economic Policy Committee recommended to the War Cabinet in March 1940 that the Government should buy standard cloth for men's suits and sell it to makers-up, and that there should also be standard boots and shoes; price margins would be fixed at each stage. These recommendations were made without enthusiasm—the scheme would interfere with traders, it would encourage consumption, it might lead to rationing and its effect on the cost of living would be small. But the fear that the poor would suffer in competition with the rich for reduced supplies of clothing overcame these objections. The War Cabinet approved the scheme in principle and wanted it to be in operation by October; responsibility for it was to be with the Ministry of Supply. No more was then heard of the scheme—apart from a brief disinterment of it in July and August 1940, when the Ministry of Supply and Board of Trade competed with each other in disclaiming responsibility for it. After that brief encounter, it remained buried until 1941.¹ Meanwhile, the clothing index still soared and food subsidies were left to support alone the beginnings of a stabilisation policy.

Taken as a whole, the Government's policy achieved some success in slowing down the rise in the cost of living. To that extent, it damped down claims for increased wage rates. But, before the war, another danger over wage rates had been foreseen—that wage increases might be given to particular sections of workers 'for motives of immediate expediency' and subsequently be given, under pressure, to other sections of workers. Chapter V has already shown that this danger, in the munitions industries at least, was very real. With controls over labour virtually non-existent, the skilled workers who were so badly needed by munitions firms had to be enticed thither mainly by higher wages. It was not simply that wage rates in the engineering industry rose; standard rates were exceeded and total earnings were pushed up by competitive bidding and poaching, particularly on the part of contractors working for the Government under different forms of 'cost plus'—a form of contract which encouraged such malpractices.² At first, it was only skilled workers who were much affected; but from the early summer of 1940, when the reserves of unemployed were dwindling, high wages were beginning to draw into the war factories unskilled labour as well. So long as workers were drawn from unessential industries, high wages were

¹ See E. L. Hargreaves' and M. M. Gowing's *Civil Industry and Trade*, in this series (H.M.S.O., 1952); Chapter IV.

² The Stamp Survey reported in November 1939 that this was already happening.

helping to redistribute labour properly; but some of the workers were drawn from the mines, the railways and the fields. Part of the answer was to introduce manpower controls worthy of the name; but attempts were also made to narrow glaring disparities in wages by pushing up the lower rates.¹

At the beginning of June 1940, wage rates, with their ten per cent. average rise over September 1939, had not yet caught up with the cost-of-living index with its seventeen per cent. rise. A big rise in weekly earnings had helped to keep within moderate compass the demands for higher rates. According to a Ministry of Labour survey, average earnings were thirty per cent. higher in July 1940 than in October 1938.² Money earned from overtime and hard work inflated demand just as much as higher wages rates; but it was the price of a larger war effort and by no means to be discouraged.

Averages are notoriously deceptive and the big increases in earnings did not mean that the strain of rising prices lay lightly on all families or all wage-earners. It fell hardly on those groups of the population whose standards of living were conspicuously low before the war—the large families, the people in badly paid industries and those dependent on social security payments.³ No further reduction in consumption should have been allowed to fall upon them. But, in the early months of the war, the rising cost of living, mitigated though it was by subsidies, made the struggle to live harder for the majority of them—harder, too, for some classes of the newly poor, such as the wives and children of men in the fighting services.

These problems and the various solutions sought for them are touched upon in a companion volume:⁴ here they can only be mentioned. Little was done at this time to ease the financial anxieties imposed on many families whose breadwinners were in the Forces.⁵ Nor was there much easement of the real difficulties of some other classes. In January 1940 it was decided that the Exchequer should supplement old age pensions on a household needs basis; but the Stamp Survey's scheme for family allowances was vetoed because of its cost to the Exchequer; so also was a suggestion for issuing cash vouchers for food on behalf of children whose parents were outside the income tax ranges. Nor would the Treasury contemplate differential food prices. It was not until the more generous mood of the

¹ e.g. the national minimum wage of farm workers was fixed in June 1940 at 48s. *The Economist* (15th June 1940) called it 'startlingly high'.

² *Ministry of Labour Gazette*, November 1940.

³ J. Hilton, *Rich Man, Poor Man* (Allen & Unwin, 1944), J. Boyd Orr, *Food, Health and Income* (Macmillan, 1936) and S. Rowntree, *Poverty and Progress* (Longman, 1941).

⁴ R. M. Titmuss, *Problems of Social Policy*, in this series (H.M.S.O., 1950), *passim*.

⁵ e.g. counting family allowances, children's allowances and allotment, the income of a private soldier's wife with one child increased from 29s. in September 1939 to 30s. in August 1940. The existence of War Service Grants was not at this time widely known.

summer of 1940 that the whole problem was tackled with real urgency. One of the most promising methods approved at that time was a big extension of communal feeding, especially school meals. Of more immediate importance was the National Milk Scheme launched on 1st July 1940 to provide all expectant and nursing mothers and children under five with milk at twopence a pint, or, if necessary, free.

Many tales could be told of skirmishes fought in the name of anti-inflation over the social services.¹ In fighting them, the Treasury had an eye to the expenditure side of the Budget. The times did indeed demand economy in the national finances, but economy above all in the sense of securing best value for money and speeding the release of labour and raw materials for war production. There surely was some lack of proportion in the anxious thought taken lest the Exchequer be overburdened and excessive income be generated through social security payments. After all, they represented only a small proportion of the national income: in 1939, rents, interest and profits, together with wages and salaries accounted for well over ninety per cent. of total personal incomes. The really urgent financial task was to draw on these groups to meet the demands of the Exchequer and drain off the surplus spendable income which accrued to some of them in spite of the Government's attempts to keep down profits and wages.

Once more we must remember the lesson of the First World War, as it had been expounded in the Treasury memorandum of 1929.² That memorandum had emphasised the need for great sacrifices in order to fend off the disastrous consequences of financing government expenditure by the creation of bank credits. Taxation must be increased 'greatly, and above all rapidly to the maximum point which [could] in practice be maintained': the balance of expenditure must so far as possible be met from the 'genuine savings' of the people.

Taxation was certainly increased rapidly. In the first war budget in September 1939, the standard rate of income tax was raised from 5s. 6d. to 7s. 6d.³ and the reduced rate⁴ was raised; an excess profits tax of sixty per cent. was introduced; rates of surtax and estate duty and indirect taxes on beer, spirits, tobacco and sugar were all raised. But were these increases great enough? Total revenue in the financial year would still be only fifty-one per cent. of the total expenditure that was anticipated, leaving a gap of £938 millions to be bridged by borrowing. Could 'genuine savings' bridge this gap and provide the

¹ Some of them are told in *Problems of Social Policy*.

² See above, p. 47.

³ The rate was 5s. 6d. for the first quarter of the financial year and 7s. 6d. for the last three quarters, making the rate 7s. for the year as a whole.

⁴ Payable on the first £130 of taxable earned income.

sums still necessary for private capital investment—most of it for war purposes—and repair of capital equipment? The nation's savings in 1938 had been no more than £700 millions.¹ Would not the gap have to be filled by inflation of incomes? At the end of the financial year, the deficit, though large, proved smaller than expectations: revenue was larger than had been estimated and expenditure was as much as £116 millions less. Here was cause for uneasiness of a different kind. Was not so low a level of public expenditure the proof of an inadequate war effort?

The Chancellor and his officials, when preparing the second war budget, were not unmindful of these anxious questionings; but, although there was no suggestion of setting a financial limit to British war expenditure, the Treasury could not conceal its feeling that an effort on the German scale would be beyond the financial capacity of this country. With some misgiving, the estimate for war expenditure was fixed at £2,000 millions. It was denounced as a miserably inadequate figure.² But even so, the Chancellor confessed himself unable to see clearly how he could ward off the inflation against which he had preached so fervently. He had no firm confidence that voluntary lending would fill the gap between expenditure and the proceeds of taxation. For, of the total government expenditure of £2,667 millions, only forty-six per cent. was to come from revenue. There were to be decreased income tax allowances, higher postal charges and higher duties on beer, spirits and tobacco, and a bill to limit dividends. A purchase tax was to be introduced in order to restrict spending.³ But all this left £1,433 millions to be found by borrowing. The Keynes plan for compulsory saving had been turned down; the gap would have to be filled—if it could be filled—by the schemes for voluntary saving.

What were these schemes? A drive to encourage 'small' savings had been planned before the war and a campaign for National Savings and Defence Bonds was launched in November 1939. The Government's main loan, however, was not announced until March 1940. It had been much discussed between the Treasury and the Bank of England; but revenue was keeping up well with expenditure, and the gilt-edged market did not recover from its war paralysis until February. It was important to wait until prices rose near par once more, for the Government was determined from the outset that the money for the war should be borrowed cheaply. The 1914-18 war had become a five per cent. war; this time a long-term rate

¹ Cmd. 7371.

² See e.g. *The Economist* (27th April 1940); H. of C. Deb., Vol. 360. See generally budget debate, 24th and 25th April 1940.

³ Since this was not to operate until October 1940, its effects will be mentioned later in Chapter XII.

of interest higher than three per cent. was considered economically undesirable and politically impossible. Once the market had recovered, the Government, with its exchange control preventing investment abroad, and with restrictions on capital outlay at home,¹ could practically dictate the rate of interest. When, however, a £300 million three per cent. loan was launched in March, it fell lamentably short of expectations.² The sums subscribed by the public did not even reach £200 millions.

In the spring of 1940, then, the Government was finding difficulty in carrying out the 1929 precepts of financing war expenditure. Taxation was unprecedentedly high; but it met less than half of a war expenditure which many competent people considered too low: the politically-possible rate of interest did not seem adequate attraction for 'genuine savings'. Indeed, if the dangers of inflation during these early months of war had been as great as they were sometimes painted, the Government's defences would have been easily overcome. The defences had been built piecemeal and in some parts were extremely flimsy. For example, in the early summer of 1940, food-stuffs whose retail prices were controlled numbered less than twenty while the Prices of Goods Act was a wholly inadequate control over other goods. Nor was the key importance of rationing understood.

Nevertheless, in pursuing the general principle of keeping down monetary demand, the Government had come to grips with some of the most important practical problems. The foundation of a stabilisation policy had been laid with the decision—however temporary it seemed at the time—to subsidise the cost of living. And the Government had met the full force of the political and psychological objections to any direct control of wages. Experience had been gathered which was to stand the Government in good stead now that the real testing time for maintaining a level economy was approaching.

(iii)

The Civilian Economy

We have spent much space on these financial problems because they, with the shortage of foreign exchange, held chief place in the economic deliberations of the Government during the first months of the war. Their importance, though great, was perhaps overweighted. Their handling would largely determine the distribution of the

¹ See below, p. 173.

² There were various reasons—e.g. old commitments could not be shed at a moment's notice.

financial burden of war; but far more urgent was the mobilisation of the civilian economy for war purposes. Sometimes, indeed, it was suggested that financial methods of limiting civilian expenditure would produce this mobilisation.¹ Abstention from buying luxuries, it was said, would save shipping and foreign exchange. So to some small extent it might; but it could not possibly solve the crises of 'cash' and 'carry'. Nor could it play the chief part in building up the munitions industries. Direct government spending upon war purposes certainly needed to be supported by the restriction of civilian spending on private purposes; but both needed to be reinforced by direct government control. An effective and comprehensive system of control, however, developed but slowly.

The needs of the first nine months of war must not, of course, be judged by those of the later years. We do not find that insatiable manpower hunger, compelling the reduction of all civilian standards to the minimum compatible with efficiency and morale. And there was, after all, no inherent virtue in throwing people out of their jobs to swell the numbers of unemployed. The demands of war upon the civilian economy in the early months were much less comprehensive than they became later. What were they? There were, first, heavy demands on particular industries—especially engineering and building—and consequently labour shortages in them. Secondly, there was the pressure of 'cash' and 'carry'; imports must be cut down and exports encouraged. Thirdly, there was the need to use the peaceful days of grace to the full, to build up stocks against the day when the bombers and possibly the U-boat would dangerously strain ports and shipping. What measures did the Government take to regulate civilian demand for these purposes?

In the engineering and building industries, the actual outbreak of war with its economic dislocation and fears for the future had a depressing effect on current private demand. At the same time new large-scale projects—though not by any means the predominant method of capital expansion—were prevented by the swift introduction of control of capital issues.² Meanwhile, central government departments drastically cut their programmes of civilian capital expenditure and local authorities were instructed by the Treasury to do likewise.³ Private demand revived before long but faced increasing impediments.

¹ See e.g. H. of C. Deb., Vol. 356, Cols. 805, 806 (25th January 1940); article 'Guidance Wanted' in *The Times* (16th January 1940).

² No. 6 of Defence (Finance) Regulations. See S.R. & O. 950, 1067, and following Orders and the Exemption Order S.R. & O. 1007. Applications for issues of more than £5,000 had to be submitted to a Capital Issues Control Committee which would generally approve issues only for defence purposes or the maintenance of food supplies.

³ In a circular of 13th September 1939.

The capacity of engineering firms was increasingly absorbed by munitions work. Production of industrial machinery fell, and such goods as motor cars,¹ vacuum cleaners and refrigerators were among the first consumer goods to disappear. In fact, during the first nine months of war, the expansion of munitions work took place largely at the expense of the home and export trades of the engineering industry;² by June 1940 most sections of the engineering industry had only about twenty per cent. of their workers employed on the home trade. But even this was too much. Moreover, according to the President of the Board of Trade, manufacturers, with their profits limited, were tending to put their assets into capital goods. In April 1940, a stricter and more efficient system of licensing iron and steel was adopted;³ but it was not working properly until the end of 1940. However, in June, raw material control was reinforced by machinery licensing. Anyone wishing to buy certain classes of machinery had henceforward first to get a licence from the Board of Trade, which would grant one only for some purpose of national importance.⁴

War also made heavy demands from the beginning upon the building industry. The Government's building programme for the first twelve months was more than double the 1938 programme and could only be met by cutting civilian building to the bone and organising the industry effectively. No government department then existed to do this and to co-ordinate all the different programmes; the proposal to establish one was, at that time, strongly resisted, then defeated. No single authority therefore was directly responsible for reducing civilian building. In the first week of war, the Ministry of Health instructed local authorities to stop their house-building and slum clearance schemes. Private building however was restricted only through the raw material controls. Effective steel licensing did not begin until the spring of 1940; but as early as 12th September 1939 the Timber Control had told its area officers to refuse timber for civilian buildings unless they were very near completion. By these means a large volume of private building was stopped.⁵ But raw material controls alone have rarely been proof against evasion, especially when private stocks have been high, and as late as July

¹ In January 1940, domestic motor cars were considered to be the chief form of consumption which had been restricted.

² Between June 1939 and June 1940, the numbers engaged on government work in the engineering, motor vehicle and aircraft industries almost doubled, while the increase in the total size of the engineering and allied trades was relatively small.

³ Each department was now to receive a total allocation and issue authorisations to the industries for which it was responsible.

⁴ S.R. & O. 1940, No. 875. At first only sixteen classes of machinery were covered. By December 1942 ninety classes were listed.

⁵ *The Economist* (20th January 1940) p. 115, estimated that £200 million of work (pre-war prices) in the hands of private architects had been stopped.

1940 ministers were told that though no steel or timber licences had been issued for several months a substantial amount of private building was still going on. Not until October 1940 was there a proper system of building licences and a department to operate it.¹

Thus, even where there was strong and obvious direct competition between war and civilian demand, effective control did not come before the dangerous summer days of 1940. Nor was the hesitation much less when the competition for limited resources originated in the shortages of foreign exchange and shipping space and the need to build up stocks. Much of this story has already been told in Chapter IV—the continued importation of unessential and even luxury goods and, in April 1940, the first limitation of supplies to the home market in the interests of the export trade.

The doubts and hesitations of the period can perhaps be best exemplified from the history of rationing. Pre-war plans had been made for rationing petrol, fuel and essential food. Rationing of petrol and fuel—to conserve stocks—was in fact announced on the first day of war.² The scheme for petrol was efficient and began on 23rd September; that for gas, coal and electricity was very loose and operated only in name.³ The real tussle came over food. Long before the war, the Food (Defence Plans) Department had assumed that immediate rationing would be essential and Cabinet sanction a formality; had not ministers authorised the printing of ration books in peace time? The Department had felt that even to delay rationing by basing the issue of books on the National Register would be dangerous and on the 4th September 1939 it got the War Cabinet to agree, only to discover an unsuspected gap in its own arrangements; this would itself delay rationing by several weeks. Hastily War Cabinet sanction was sought to reverse engines; National Registration was now to precede and assist rationing. But the link between the two, though discussed, had not been properly forged and there followed a series of postponements of the time when rationing could begin.⁴

Meanwhile, ministers debated whether it should begin. In the discussions of the Home Policy Committee and the War Cabinet, economic expediency was opposed to the psychological niceties involved in the maintenance of morale at home and in denying to the enemy material for propaganda. Psychology won when a decision was deferred until public opinion had been surveyed to find out

¹ In addition, in July 1940 an Order (S.R. & O. 1940, No. 1138) prohibited the use of steel in building (no matter when or how it had been obtained) without a licence.

² *The Times* (4th September 1939).

³ See Professor W. H. B. Court's *Coal*, in this series (H.M.S.O., 1951); p. 155.

⁴ See *Food*, Vol. I, Chapter VIII.

whether the public wanted rationing and whether they would regard it as a relief or a burden. The survey was completed within three days and the War Cabinet was told that if there was any risk of shortage, the public would definitely favour immediate rationing. But the War Cabinet still hesitated to authorise action which would trammel the customary liberties of selling and buying food. Not until nearly two months after the outbreak of war did it agree at last to the rationing of butter and bacon, of which there were already spot shortages; and it still remained unconvinced that meat and sugar rationing were necessary.

Ironically enough, the Ministry of Food's case for sugar rationing had been compromised in ministers' eyes by its claim to have bought the whole Empire sugar crop. Sugar bought, however, was not sugar delivered; stocks in hand were being steadily dissipated: as unpleasant proof, the Ministry applied in November for authority to negotiate the purchase of 300,000 tons of foreign sugar at an estimated cost of £3 millions worth of dollars. Sugar rationing was once more recommended and this time—on 6th December—it was approved by the War Cabinet.¹ A worsening of the prospective supply of meat induced the War Cabinet to agree at the same time to meat rationing. As has been said, the mechanism of ration book delivery and food registration worked more slowly than had been expected so that in the end rationing came in for sugar at the same time as for butter and bacon:² for meat it came a little later.

If these falterings over rationing seem to have been emphasised more than their actual effect warrants, it should be remembered that they are important evidence of the Government's attitude at that time to economic problems³ and of its lack of conviction when the time came for executing pre-war plans.

Even bigger than the claims of food on importing capacity were those of raw materials. Here too civilian demand needed to be restricted in the interests of war production, exports and stock piles. When, however, the Chancellor of the Exchequer informed the House of Commons in the spring of 1940⁴ that the system of raw material control was carefully allocating available supplies of these essential goods, he was rather overstating his case. For raw material control was as yet extremely incomplete. In the first place, the purchase of the majority of raw materials remained in the hands of the

¹ One member of the War Cabinet objected that the Minister of Food's argument that to cut down the consumption of sugar would save shipping and foreign exchange, was 'a matter not of food but of financial policy'.

² From 8th January 1940.

³ The reluctance to contemplate clothes rationing was noted in Section ii (p. 168).

⁴ H. of C. Deb., Vol. 360, Col. 85 (23rd April 1940).

trades, often virtually uncontrolled by the Ministry of Supply which had correspondingly little influence over distribution.¹ But in any case, the Raw Materials Department of the Ministry of Supply was as yet a very undeveloped administrative machine. Pre-war plans had provided only a rough outline—an interdepartmental materials committee would issue general directions to controllers who would retain considerable powers of discretion. Allocation systems, most of them rudimentary, were devised for only a few materials, and although the schemes for crucial materials such as steel were strengthened, the real burden of responsibility for distribution rested throughout the first nine months of war upon the individual controllers. The powers which should have been exercised by some central organisation passed in practice to the executive officers of the Ministry of Supply. And the definition of priorities to which these officers were supposed to work was unhelpfully wide. War production, exports and essential civilian needs came first; but what was the order of precedence between them? What marks of identification enabled raw material controllers to distinguish between essential and unessential civilian demands? Such questions had received as yet only the sketchiest of answers, if any at all. Moreover, no reliable or comprehensive statistics existed on which to base distribution.

In this confusion civilian industries inevitably did far too well. There were, indeed, some exceptions: the controllers of timber² and paper cut civilian supplies heavily. But steel cuts did not begin until the spring of 1940 and most controllers found it difficult to harden their hearts even when there was obvious shortage. They were reluctant to cause unemployment and very respectful towards the argument that a prosperous home trade was a necessary base for flourishing exports. In any case, their enforcement machinery was much too loose to prevent leakages into the home trade of material allocated for export or war purposes. This was the position even where shortages already existed and serious attempts at control were made; in June 1940 ministers noted ruefully that controllers had frequently overlooked the need to impose drastic economies over raw materials which were not yet scarce. Heavy government demands on the textile industries had not as yet reduced civilian supplies. Wool stocks, for example, fell; but a reduction in civilian allocations from March 1940 did not prove very effective. There were many other examples. In June, copper was still used in substantial amounts in jewellery, curtain rails and bedsteads; half the total lead supplies were going to the home market; licences for jute cloth for unessential purposes seemed to exceed those for direct and indirect

¹ Even such important materials as tin, hides, cotton, were left in the hands of the trade.

² Not only was civil building cut but, e.g. by May 1940, the furniture industry was getting only fifteen per cent. of its pre-war timber supplies.

government use. Altogether, it was a story of slow and hesitant beginnings.

Such reluctance to observe and profit by the omens meant that the general standard of living was maintained only too well. The cost of the war was paid socially rather than economically—in the numbers of children going without education, the numbers of sick people ejected from their hospitals to make room for the expected casualties, the heartache of families widely scattered from each other. Few people as yet had any real conception of the great contribution that civilian sacrifice could make to economic mobilisation. Ministers, high officials and trade union leaders alike found it difficult to believe that sufficient manpower and raw materials would be forthcoming to work the new factories that were going up. In April 1940, scepticism was expressed in more than one quarter about the possibility of reducing the civilian allocation of steel. However, different times breed different habits of mind. By the time this period ends with France prostrated, the first steps had been taken towards the drastic contraction of civilian production, tighter control over manufacture and supply, wider and more stringent rationing. The British no longer boasted in their propaganda that they were living better than the Germans. The Government no longer muffled with excuses its call for sacrifice.

CHAPTER VII

INTER-ALLIED WAR ECONOMY

(i)

Preparations

ON 30th October 1917, in a letter addressed to M. Painlevé, Mr. Lloyd George had appealed for a closer co-ordination of Allied efforts and the institution of 'an Allied joint council, with permanent military and probably naval and economic staffs attached'. In a letter addressed to M. Daladier on 6th July 1939, Mr. Neville Chamberlain quoted his predecessor's appeal and said, 'I feel that these words are as true today as when they were written'. Even before the onset of the Second World War, the British Prime Minister was proposing to start rebuilding the machinery of joint planning and action that had proved its efficacy amidst the defeats and victories of 1918.

As has been explained in a previous chapter,¹ that machinery had at its apex the Supreme War Council, which was constituted by the Prime Ministers and one other minister from each participating nation, and their official advisers. Both on the military side and the economic side the Supreme War Council was supported by official inter-Allied bodies—sometimes called executive committees or 'executives'—operating, in most instances, under the general supervision of joint ministerial 'councils'. The military committees and councils had been shaped more rapidly than the economic ones; indeed, the structure of economic co-operation was not completed until after the armistice, when a Supreme Economic Council was set up. The foundations, nevertheless, had been built firmly while the war was still raging. They had been built primarily upon the British shipping control, expanded into an Allied instrument for pooling that scarcest of all resources, mercantile tonnage. The Allied Maritime Transport Council recommended to its member governments—and most of all to the British Government, which controlled by far the greatest volume of tonnage—the adjustment of scarce shipping-space to the competing claims upon it. Those claims were stated, upon a basis of carefully sifted statistics, by twenty 'programme committees' which were grouped, before 1918 was out,

¹ See above, p. 38.

under two ministerial councils, a Food Council and a Munitions Council.

In August 1939 the British and French Prime Ministers agreed to reconstitute the Supreme War Council immediately upon the outbreak of war. They also agreed to appoint in advance of war 'permanent military representatives', to be chosen from the three fighting services of each country. The function of this combined military organisation was not very clearly defined *vis-à-vis* the High Commands; but it was in general intended to act as a kind of inter-Allied planning staff—in M. Daladier's phrase, a *Comité d'Étude Militaire Inter-Allié*. No similar body was contemplated as yet for joint economic planning; but it was stated that inter-Allied boards for supply, shipping and other economic matters might be needed later on. Meanwhile, the British proposed that each country should establish, at the centre of its administrative machine, an Anglo-French liaison section, not for the purposes of direct negotiation and planning, but in order to put together a complete picture of the negotiations and preparations which hitherto had been scattered rather confusingly amongst many departments, both military and civil.

Economic consultations between the civil departments of the two countries had been initiated some years before Munich; but they had if anything been even more desultory than the early military conversations. It was not until the late winter or early spring of 1939 that the two Governments signalled an emphatic *accelerando*. From the time of languid beginnings right up to the conclusions that will be described below, the scene of the consultations was London. The French were 'the visiting team'—a position which the British some years later found themselves in, after the United States had become the predominant economic power in the combination against the Axis.

It cannot be said that the British departments and their French visitors had achieved a very impressive body of combined economic preparations by the time war began. It was perhaps easier for them to agree upon plans of economic warfare against the enemy than upon plans for strengthening and combining their own economic resources: to decide what had to be done in order to deny oil imports to Germany was one thing, to agree upon a division of available tanker tonnage between France and the United Kingdom was quite another. In the main, the French were prepared to follow the British—who possessed a far better blockade organisation, as well as a far stronger blockading power—in specific operations of economic warfare, such as the negotiation of trade agreements with adjacent neutrals and the collation of the lists of export prohibitions. Economic warfare, subject to the limitations imposed by a strong desire to keep within the rules of international law, was by September 1939 fairly well provided for on an Allied basis.

Plans for building the war economy on an Allied basis were limited in the main to some rather restricted agreements in the sphere of overseas supply and purchase. Practically no attempts were made to integrate and balance the national armaments plans: each country had its own types of weapons and aircraft, its own production programmes, its own conceptions about the mobilisation of manpower, materials and plant. As regards overseas purchase of additional weapons, neither country thought itself able to do very much; but the French were preparing to do more than the British. The strongest impulse came from M. Jean Monnet, who had been sent to the United States to survey the opportunities for purchasing American aircraft.

Both countries were necessarily concerned with the procurement of overseas materials; but both too readily assumed that war would leave undisturbed the existing easy conditions of supply, and neither was in a position to produce reliable statistical estimates of consumption and stocks. Despite fairly continuous contact between British and French officials, the planning of a co-ordinated raw materials procurement policy did not get very far beyond a general undertaking to avoid competitive purchases.

Plans for combined action in the procurement of food were distinctly more business-like. The food problems of Britain and France were of course very different: one country was in an unusual degree dependent upon imports; whereas the other enjoyed a high degree of self-sufficiency. But this sufficiency was not of course complete. There were some important commodities, for example vegetable oil, which both countries had to import. At the same time, both countries were preoccupied with the market prospects of food producers in their colonial dependencies. Even before Munich, the visit of a French mission to the Food (Defence Plans) Department had resulted in a fairly comprehensive agreement—a joint food committee to be set up in London: co-ordinated purchasing of cereals, frozen meat, pulses, sugar and cocoa: joint purchasing missions in the chief neutral countries: each country, in its own colonial territories, to make all necessary purchases on behalf of its ally.

The procurement of food, raw materials and all other overseas imports raised the crucial problems of foreign exchange and shipping. Inter-Allied plans for handling these problems could not possibly be more efficacious than national plans; for in the approaching war, as in the past one, executive action would be the responsibility of the national governments, and the inter-Allied planning authorities could not efficiently perform their task of focusing the essential issues and recommending action unless the national administrations supplied them with exact and relevant information. Between the two Treasuries, there was a sufficient exchange of information

on the subject of foreign exchange resources. In April 1939 they communicated to each other their respective plans for emergency financial action and exchange control. The mutual communication of plans is not, however, the same thing as the construction of a common policy. When war broke out, the two Governments had not as yet reached agreement even about the methods whereby they would settle their war-time accounts with each other.¹ Moreover, there still remained between them an unresolved divergence of view about their respective shares of the burdens that would arise from pre-emptive purchases and the financial support of smaller Allies. The French might argue—later on they did argue—that France was ‘three times poorer than England’ and therefore should bear a proportionately smaller share of the burden: the British might reply that France had ampler means of making foreign payments than Britain possessed. Certainly, France had a larger store of gold, and an equal store of dollar securities. To what extent and through what agencies would the two countries co-ordinate their policies for mobilising their resources of foreign exchange? How would they collaborate in framing their currency-earning policies? Would they take effective steps to establish a common front of the pound and the franc? What was the extent of the interest which each possessed in the price and wage structure of the other? To none of these large questions was a precise answer given in advance of war. Nevertheless, the two Treasuries were in close and friendly contact with each other. They were, at any rate, under no illusions about the limits of their combined capacities to make foreign payments.

Unfortunately, the shipping authorities were not correspondingly aware of their limited resources of tonnage. Those shortcomings of British calculation that have been already described² projected themselves into Anglo-French planning. The French knew well enough that their own shipping would not nearly suffice for their own needs; but the British were confident that British shipping would more than suffice for British needs. Moreover, they felt sure that large blocks of neutral shipping would by the curtailment of alternative employment be driven into service with the Allies. In consequence, the French need have no fears: the deficiencies of their own mercantile marine would in full measure be made good. The French

¹ On 23rd August 1939, the French submitted a draft convention for creating a clearing account and making reciprocal advances at four per cent. interest, to cover both the expenditure of British forces in France, and French expenditure in Britain and the British Empire, with possible extension to all overseas expenditures. The British had submitted a less far-reaching counter-draft. The discussions had proceeded no further when the outbreak of war and the crossing of the B.E.F. to France made speedy action essential. Both countries then agreed (8th September 1939) to postpone the complicated negotiation and for the time being advance to each other £4 millions for use in each other's territories. (cf. p. 190 below).

² See above, Chapter IV, Section (iii).

accepted this assurance; but they sought to make assurance doubly sure through the establishment of a combined Anglo-French organisation to charter neutral shipping and allocate it to each nation on the basis of a long-term estimate of comparative national needs. This suggestion ran counter to the ideas of the Mercantile Marine Department. It stood out for the arrangement of the previous war, under which chartering was entrusted to British firms, and allocation, even when it was by recommendation of an Allied organisation, was made on a short-term, voyage-to-voyage basis. The French reluctantly accepted this arrangement, which made them in large measure dependent upon their ally. The dependence might not after all matter very much, if their ally's forecasts of abundance were true. In the faith that the forecasts were true, French departments, like British ones, were expansive and vague in their estimates of requirements. The statistical bases of a scientific import programme were not worked out in Britain; still less were they worked out in France. In consequence, they could not be worked out for Britain and France in combination.

The flimsiness of Anglo-French shipping calculations may be illustrated from two essential commodities that have not up to the present been discussed—oil and coal. For oil, both France and Britain were equally dependent upon imports from overseas; for coal, France would be especially dependent upon imports from Britain, once her large supplies from Germany and Poland were cut off. There seemed no cause for misgiving about the availability in overseas countries of ample supplies of oil and petroleum products—with the possible exception of aviation spirit. Nor were there at that time any misgivings about the capacity of British coal-fields to satisfy to the full the expanded requirements of France.¹ According to the calculations of that time, the only limitation that need be seriously considered was the limitation of shipping space: oil signified tankers, coal signified colliers.

Of the petroleum imports of France in 1937 only 40·19 per cent. had been carried in French tankers; British tankers had carried 16·72 per cent.; the tankers of other nations had carried the rest. The French would doubtless have been anxious about their war-time prospects had not their British colleagues convinced them that neutral tankers would be available to them in plenty; believing this, they set down their requirements at a round 10 million tons for the first year of war. They offered no detailed statistical justification of

¹ They would be expanded because of the increasing demands of the French munitions industries, the drastic French plans for calling miners to the colours, and the fact that in peace time France had been taking from Germany and Poland in most years a third and in some years nearly a half of her coal imports. It is worth noting that many of the French coal-mines were on the wrong side of the Maginot Line; also that French imports of coal, even in peace time, were in *weight* half the total of all French imports.

this figure; nor did the British ask for it. About French estimates of their coal requirements, the British shipping authorities were, for a time, considerably more critical. The Mercantile Marine Department argued in 1938 that it was too tall an order for British colliers, even with neutral aid, suddenly to push up their deliveries of coal to France from 7 million tons¹ to 20 millions—the figure the French stated. But, somehow or other, the British drifted into acquiescence with the French claim. By August 1939 they had committed themselves, tacitly at least, to supplying those 20 million tons of coal—a commitment that would necessitate the continuous employment of 600,000 deadweight tons of British and neutral shipping. This task was proved very soon to be beyond fulfilment.

(ii)

The Record of Nine Months

Immediately war broke out the Supreme War Council was constituted and within the first three weeks of war it held two meetings.² The permanent military representatives were established already in their Whitehall headquarters. To be sure, they did not know precisely what their work would be; but they were busily trying to find out. On the economic side it was harder to make a start; for no authority had been established as yet to make plans for the Anglo-French economic effort as a whole. The deficiencies of piecemeal and partial departmental preparations soon made themselves felt. Those multitudinous difficulties that arose from the unforeseen shipping shortage imposed upon the alliance precisely the same strains as it imposed on British departments. Indeed, for the French the strains were harder to bear. Their representatives in London soon found themselves accused of exaggerating France's need of petroleum or coal or imported raw materials. They found themselves called upon to do what British departments themselves were as yet unable to do—to produce proven statistics, to declare import priorities, not for adjudication by an impartial Allied authority (for none existed) but for adjudication by the British Ministry of Shipping. They felt themselves being put in the invidious position of poor relations begging from door to door and liable to suffer rebuffs even from underlings.

On the British side, no less than on the French, there was a strong desire to achieve a more equal and efficient order of affairs. In the

¹ United Kingdom exports of coal to France (at a time when they would have greatly benefited the British economy) had declined from 14½ million tons in 1930 to just over 7 million tons in 1938.

² At Abbeville on the 12th, at Hove on the 22nd September.

War Cabinet Offices much thought was given to the best means of establishing, without the slow growth and wasteful improvisation of the previous war, that same effective co-ordination of Allied effort as had marked its close. Since the alliance was bound to be just as strong or as weak as the national machinery permitted it to be, the search for inter-Allied efficiency became intermingled—then as later—with the search for national efficiency. For that reason alone, if for no other, many responsible persons in British government service welcomed the strong drive that came very soon from the French, and in particular from M. Jean Monnet, a veteran of international economic planning both in the First World War and during the period of Genevan peace. Monnet had the ear of the French Prime Minister; he attended the second Supreme War Council at Hove; he was the main fountain-head of the letters, the memoranda, the minutes of official meetings and notes of informal discussions which from late September to early December marked the erection of a logical and genuinely combined structure of economic planning.

Monnet's ideas were first briefly expounded in a letter of 20th September from M. Daladier to Mr. Chamberlain; during the next fortnight they were more carefully elaborated in letters and memoranda of his own signature. At their root was the ardent purpose of a complete pooling of all Allied resources. Assuredly the full purpose could not be achieved all at once; but immediate steps could be and must be taken towards its realisation. Monnet proposed:

1. A common balance sheet of requirements and resources based on exact statistical data contributed by each ally.
2. Strong inter-Allied executive committees to deal with the main problems of supply and the governing factors of finance and shipping.
3. A series of policy committees or 'councils', composed in each instance of one British and one French minister, to direct the work of the executive committees.
4. An Economic Council, composed possibly of one British and one French minister, to give overall economic direction.
5. Joint purchasing arrangements in neutral countries. Here Monnet envisaged a vast Anglo-French organisation which would establish itself as the sole large purchaser in the world and be strong enough to compel neutral suppliers—perhaps even the United States—to do business with it on a credit basis.

Monnet's general conception found favour in London; but it was the general feeling there that the foundations of Anglo-French economic planning ought to be solidly laid before the complete superstructure was erected upon them. The British Government was at this very time seeking to introduce more system into its own economic

planning; these were the weeks in which the double-tiered Economic Policy Committee was being set up. Under its aegis would operate a committee of officials for the special business of Anglo-French purchase and supply. In the British view, the institutions of Anglo-French planning ought for the time being to be kept on the official, as distinct from the ministerial level. Monnet was informed of this conclusion on 6th November. The British whole-heartedly approved the executive committees he proposed; they were willing also to approve occasional consultations between these 'executives' and the appropriate ministers; but for the present they rejected the ministerial councils and the central Economic Council. They did nevertheless recognise the need to bring proportion, order and unity into the work of the specialist committees, and for this purpose they proposed an Anglo-French Co-ordinating Committee. It would be constituted in the main from the senior officials of the specialist executives; but it would have its own full-time chairman and would deal with the problems of priority and all general economic issues.

Monnet was at first disappointed. Of course, like everybody else, he had taken it for granted that the headquarters of Anglo-French planning would be in London; but he realised that the French, as 'visiting team', would be at a tactical disadvantage, and he had hoped to correct this disadvantage by infusing into Anglo-French co-operation the equalising element of ministerial authority. He was however quick to perceive the compensating potentialities of the Anglo-French Co-ordinating Committee, and in particular its office of chairman. The British were perhaps contemplating a joint committee of their usual inter-departmental pattern—to arrange and adjust the policies that originated elsewhere, not to initiate policies of its own. The French were determined—which means that Monnet was determined—to entrust to the chairman of the combined organisation a definite role of leadership, planning and organisation. They were also determined to secure for France the office of chairman. After a good deal of manoeuvring and debate, the office was—inevitably—secured for Monnet himself. On 29th November he received from both Governments his letters of appointment and instruction. On 6th December he took the chair at the first meeting of the Anglo-French Co-ordinating Committee. There, on the authority of the instructions given to him, he declared himself an Allied official, representing equally both France and Britain.

It had taken three months to erect the institutional structure of Anglo-French economic planning—a third of the destined life of the alliance. The work had, nevertheless, by any fair comparison, been quickly done and well done. During the First World War, it had taken the Allies four years to achieve what this time they achieved in one quarter of a year. Later in the Second World War, the British

and Americans, though they had the Anglo-French experience to build on (with Monnet himself still active and ardent as a builder) failed to complete their structure of Combined Boards by adding to it an institution dedicated to the task of overall economic planning. If logic and comprehensiveness of structure were the only tests of adequacy, the arrangements made in December 1939 would have to be accepted as a high-water mark of achievement in the sphere of inter-Allied economic effort.

Nine separate executives were set up,¹ and began operations under clear and rational instructions. Each executive within its own sphere was expected to survey the requirements of the two countries and to make an inventory of their resources: to secure the best use of those resources in the common interest: to formulate joint import programmes, and under these programmes so to organise purchases as to eliminate competition between the Allied nations. Every executive which had responsibilities of importation was instructed to adjust its programmes to the limitations of 'cash' and 'carry', and in particular to maintain close contact with the Shipping Executive. If the proposed adjustments should prove in practice to be insufficient, the Shipping Executive would have authority to demand reductions; in default of agreement, the appeal would go to the Anglo-French Co-ordinating Committee and, if necessary, to higher political authority. The Co-ordinating Committee was a flexible body composed on the panel system from the chairmen of the executives (half of whom were British and half French) together with representatives from the two Treasuries and Foreign Offices, the British Board of Trade and the French Ministry of Commerce. To it were assigned the specific functions of co-ordinating the work of the executives and supervising the activities of Allied purchasing missions abroad. In addition, as has already been emphasised, the Co-ordinating Committee, and in particular its chairman, was given a wide commission to handle all problems of priority and to take the initiative in matters of economic principle and policy.

Amidst so much that was good, one thing only was lacking; the preparation of mind and spirit. Whereas in the First World War the late-emerging institutions of Allied co-operation had been solidly founded on hard experience and the deep-felt recognition of need, this time the institutions took formal shape in advance, not of the need, but of the experience and conviction of need. The lessons of the previous war, though they were stored in some men's minds and even written down in books, had not yet come vividly alive to the new men of 1939. For this reason, the record of the six months from late

¹ The list of executive committees was as follows: Food, Shipping, Armaments and Raw Materials, Oil, Air Production and Supply, Economic Warfare, Textiles and Hides, Timber. The rather special Coal Requirements Committee brings the number to nine.

December to early June contains a good deal of frustration and poor performance.

There is no necessity, and indeed there is no space to make a complete list of shortcomings; but some illustrations may be taken from the salient territory of overseas supply. Inasmuch as British shortcomings in this sphere have already been recorded,¹ it will not be thought uncomradely if criticism is now extended to the French. Food policy had been if anything a shining example of sensible Allied co-operativeness in the period of preparation before the war; but on the Anglo-French Food Executive the spirit of co-operation was often severely strained. The Food Executive, like all the rest, was instructed in December to compile a preliminary short-term import programme covering the next three months. The French were slow in producing their part of the programme, and when they at last sent it in, it had to be sent back because it covered a different period from the stipulated one. After a time, the French sent in a statement of their requirements for a six-months' period; but this statement, like its predecessor, was inflated far above the available shipping capacity. Yet the French members of the Food Executive showed themselves resistant and touchy at the mere suggestion of criticism or cross-examination. When France was falling they were still resisting. They on their side had found plenty to complain about. For example, they had complained during the winter months that they were denied the ships to lift the oilseeds that were piling up in French West Africa while the crushing mills of France were idle through lack of supplies. They demanded, and they obtained, some compensating shipments of oilseeds intended for Britain. Thereupon they were accused of going behind the back of the Shipping Executive to squeeze extra tonnage out of the Food Executive.

At the root of these troubles was the pre-war failure to forecast aright the available supply of shipping, and the parallel, long-persisting failure to construct precise and realistic import programmes. This failure bedevilled the work of almost every executive committee. Thus the British representatives on the Textiles and Hides Executive knew the British army's requirements of boots; but knew nothing about the requirements of the other Services—not to mention civilian requirements. The French knew even less about their own needs. In Paris, the Commercial Counsellor of the British Embassy tried in vain to extract statistics from the departmental officials. 'Nobody', he reported, 'seems to have them, or to have authority to give them'.

Similar laments were in those days common. The oil situation produced a crop of them. During the first half-year of war, the

¹ e.g. in Chapter IV, Section (iii) above.

combined oil imports of the Allies fell short of estimated requirements by approximately one half. The numbers of neutral tankers available had not come up to expectations. Early in March 1940 there were only 93 Norwegians on time charter to the British compared with the 150 that had been budgeted for. In the following months the situation improved considerably; but the French complained that they got less than their fair share of the improvement: whereas in March and April British imports of oil improved on the earlier monthly performance by a good deal more than 200,000 tons, French imports improved in March by little more than 30,000 tons; while in April they collapsed far below the figure of the previous January. British tankers were diverted and British stocks depleted to give emergency aid to the French; but the French demanded something more than emergency aid. They demanded justice. They said that more neutral tankers should have been allocated to them. When they were reminded that they had been granted almost as many tankers as they had asked for, they replied that they had too submissively scaled down their requirements at the instance of the Oil Executive. What they resented was being put in a position in which Britain, by her control of shipping, determined the French import programme. Yet they had been unable to contribute the information that was essential if an efficient and equitable combined import programme were to be compiled. The amateurish statement that they submitted to the Oil Executive in January had to be sent back because most of the essential information was missing. Until May, the shipping authorities were working in the dark. The Shipping Executive declared that under such circumstances it could not possibly do its work efficiently.

The coal situation produced if anything even more disgruntlement. This time there was no question of joint Allied importation, but only of British supply to France. To the French, adequate British supply was more than a matter of arithmetic and efficiency; it had a high moral significance as Britain's acknowledgement and requital to France of the more intense *effort du sang* that the French people would for some time be making. Even so, adequacy of supply could not be defined without efficient arithmetic, and this the French were quite unable to achieve. They found in November that they had over-estimated their loss of production through the call-up of miners and under-estimated their war-time savings of consumption: so they scaled down their requirements upon Britain from 20 million tons a year to 17 millions. Next month they scaled them down to 15 millions. But in the early months of 1940 they scaled them up again as the demands of their expanding war industries began rapidly to climb; by April the figure stood at 24 millions. Meanwhile, the British had failed to meet their ally's requirements even at the

15 millions level.¹ During the winter months, this failure had been largely due to an unpredicted shortage of coastal ships and to the dislocation of transport caused by the severe weather; but by the early spring, when a sufficiency of shipping had been at last assembled, an insufficiency of coal was for the first time revealed. Soon there followed those hectic weeks of crisis in which German armies overran the eastern coal-fields and French requirements upon Britain rose to the level of 2½ million tons a month. The British made extraordinary efforts to help: in May they shipped to France 1,814,000 tons. It was an effort that could not have been sustained for long. Nor was it required for long. Very soon there would be unemployment in British coal-fields specialised to export, and a release to the Forces of tens of thousands of miners who by the abrupt curtailment of demand had become—but for how short a time!—redundant.

In the main, imported raw materials, like labour resources in the partially mobilised home economies, remained in easy supply throughout the whole period of the Anglo-French alliance. It was the capacity to import that was strained: 'cash' and 'carry' once again. The two Governments, though they were vexed every day by the immediate shipping shortage, worried their heads a good deal more about the prospective shortage of foreign exchange. They had not thought it necessary to establish an Anglo-French Financial Executive; for the close and friendly contact already existing between the two Treasuries seemed to make this extra machinery unnecessary. After their stop-gap agreement of 8th September² about the money payments reciprocally due to each ally, the Treasuries set themselves seriously to the task of negotiating a long-term agreement which would establish an effective common front between the franc and the pound. The agreement was reached in December, after the negotiations had culminated in two personal conferences between M. Reynaud and Sir John Simon. Besides making long-term provision for their payments to each other, the two Governments accepted an allocation of the burdens of pre-emptive purchase and of financial aid to Allies in the ratio of Britain 3 : France 2. They also accepted a loosening of the restrictions upon Anglo-French trade—including Anglo-French trade in articles of luxury. But their most important preoccupation was to mobilise and conserve their joint resources of foreign exchange for the purchase of overseas, and particularly United States supplies. Broadly speaking, the French, both now and later, endorsed British plans for eking out the means of payment to cover the period of a three years' war. At least, they did not dispute the theory on which these plans were based. But their

¹ In October 1939, 663,000 tons of British coal were despatched to France; in November, 687,000 tons; in December, 784,000 tons.

² See above, p. 182.

own practice began increasingly to diverge from the theory. By placing orders for American aircraft considerably above the theoretically permitted level of expenditure, and by transferring these orders to their ally on the very eve of their own collapse, the French hastened the day when American resources would be mobilised to support Britain's defiance of Axis-dominated Europe.

To the very end, it was ships rather than dollars that were the immediate day-to-day preoccupation of Allied administrators and the most stubborn obstacle to an efficient economic partnership. It was on the French that the heaviest cost of the shipping shortage fell. A memorandum of the Anglo-French Shipping Executive, dated 30th April, 1940, summarised the position as follows:

<i>Import Requirements as stated for the first year of war</i>	
<i>British</i> (excluding oil)	<i>French</i> (excluding both coal and oil)
47 million tons	16 million tons
<i>Rate of arrival of imports since the beginning of the war</i>	
<i>British</i>	<i>French</i>
Rate of 40.5 million tons per annum	Rate of 8 million tons per annum

The French may perhaps have inflated their requirements more than the British did, but surely not wildly enough to account for the glaring contrast between the two columns. According to the estimate, British imports during the first six months of the war had been falling short of requirements by approximately one seventh, while French requirements had been falling short by one half. It was hardly to be wondered at that M. Daladier should challenge the whole basis of Allied import policy. In a communication addressed to Mr. Chamberlain on 31st March, he proposed the following order of import priorities: coal, aircraft, armaments and materials, food. Coal, which came first on the French Prime Minister's list, represented the largest need of France; food, which came last on the list, represented the largest need of Britain. Inevitably, the British refused to accept this order of priority; indeed, they were unwilling as yet to give any high-political directives to the Shipping Executive and the Co-ordinating Committee. These bodies must therefore continue to wage their own struggle on behalf of realistic import programmes and an efficient allocation of shipping space. Their difficulties were great; but it would be a serious historical mistake to undervalue the progress they made in overcoming them. Still more would it be a mistake to adduce the short-term balance sheet of comparative national advantage—which was in large measure the product of upheaval and incomplete control during the early months of war—in justification of a cynically nationalist interpretation of the competition for scarce resources. The British chairman of the Shipping Executive worked strenuously with M. Monnet towards the objective of an equitable

pooling of the combined resources of tonnage. In the early summer of 1940 this objective did not seem so very distant. But by then, another commodity had become still more scarce than shipping. That commodity was time.

The fatality of time may easily distort the historian's judgment of what was achieved during the short nine months of British and French partnership in war. A fair summing up of the partnership ought to lay stress, not merely upon those frustrations that were the predestined product of inadequate preparations before the war, but also upon the genuine gaining of ground achieved during this difficult period of economic mobilisation. A sorry tale has already been told of a vindictive dispute about oil-seeds; but much pleasanter tales could be told of French efforts to help the British through their wheat crisis and British efforts to make good French shortages of meat. In the procurement of overseas supplies, there occurred at first some fantastic rivalries between the agents of the two Governments;¹ but within a few months competitive bidding was eliminated. What the two Governments achieved in their purchases of food they achieved, under circumstances of still greater difficulty,² in their purchases of raw materials—the establishment of a common front, sometimes through liaison between their purchasing missions, sometimes by entrusting to the agents of one country purchases on its ally's behalf.

In retrospect, it is possible to trace a path which begins in the muddles of the early months but leads towards a clear-sighted programme of combined economic effort. No muddle was ever greater than the timber muddle. In September 1939, at least three British departments sent agents to France and neighbouring countries to bid for timber. Not one of these agents established satisfactory relationships with the various French authorities that had a producer or user interest in timber. The French, on their side, expressed themselves unable to meet even the requirements of the British Expeditionary Force; their department of *Eaux et Forêts* was anxious about stocks but had no programme for increasing or even maintaining production; on the contrary, it seemed to fear that the British would want it to use Canadian lumbermen to replace the French workers who had been called to the colours. The establishment of the Timber Executive at first made little difference. But German victories on the soil of France made all the difference. On Monnet's initiative the Co-ordinating Committee in late May

¹ e.g. French agents by competitive bidding for Australian tallow forced its price up against the Ministry of Food which was buying it on behalf of France.

² In Britain, centralised control and even knowledge was considerably weaker in the sphere of raw materials purchases than in the sphere of food purchases. In France, all the British weaknesses of organization existed in an exaggerated form.

proposed, and the two War Cabinets approved, the following drastic measures:

Reduction of Anglo-French timber imports from $10\frac{1}{2}$ to $4\frac{1}{2}$ million tons.

Expansion of Anglo-French timber production from $5\frac{1}{2}$ to $11\frac{1}{2}$ million tons.

This plan had symbolical significance. Its basic principle was the maximum expansion of import-saving production at home in order to achieve the maximum economy of shipping. Simultaneously, it expressed the new determination of both Governments to spend their dollars in ways that would save their ships; for the programme of home production would not be achieved without large importations of North American machinery to expedite the felling of French and British forests. Nor would it be achieved without bringing in companies of North American lumbermen to give skilled direction to the expanded labour forces at home. Total economic effort at home was the dominating note of the plan. Its spirit was self-help. But it also implied realism and forthrightness in the demands that would be made henceforward on the economic resources of the New World.

Within a few weeks of the formulation of this new plan for timber, Britain was left its sole inheritor. It may be said that the inheritance was a barren one—no more than a paper programme for a task which had not even been begun. To this objection there is an answer. Education in the habit and technique of inter-Allied planning, in the definition of large tasks and the precise calculation of means for their achievement, was an inheritance from the partnership with France that is hard to measure, but hard also to rate too high. In ways that will be made clear later on, the Americans, in their turn, became participators in this inheritance.¹ In contrast with the tragic discontinuity of the military struggle, there is a striking continuity in the struggle for economic mastery: it is symbolised in the continuing services of Monnet, of his British co-workers—who in this history are not mentioned by name²—and of the American colleagues who became in due time infused with their spirit. It can be traced in the

¹ For example, in securing the consent of the British and French Governments to the expanded programme for American aircraft which is described below, Monnet employed the 'balance sheet' technique which later was used with great effect (see below, p. 232) in British-American planning. He confronted the Governments with devastating figures comparing Allied aircraft production with German, as estimated by the two Air Staffs and the Ministry of Economic Warfare. In similar 'balance sheets' compiled later on, estimates of requirements on the basis of accepted strategic plans took the place of the speculative figures of enemy production.

² For the reasons of constitutional convention explained in the preface, a similar one-sidedness of emphasis occurs throughout this book. The personal services of permanent British civil servants are veiled in anonymity; whereas the corresponding services of a Frenchman or a Canadian are on occasion specifically recorded.

sequence of documents, Anglo-French documents to begin with, British-American ones later on—the signposts of that immense mobilisation of combined resources which after five years overwhelmed the enemy powers.

Moreover, some immediately fruitful things were included in Britain's inheritance from her partnership with France. Not all the joint planning bodies had made such a poor start as the Timber Executive. The best start of all had been made where it was most needed, in the building up of air strength against the enemy. There were, of course, severe limitations upon what the Anglo-French Air Executive could achieve; for each of the Allied countries was already committed to its own types and its own production programmes. Immediate opportunities for dovetailing these programmes into a genuinely combined productive effort were for the most part restricted to mutual aid in the supply of raw and fabricated materials: for example, Britain helped France with supplies of duralumin and drop stampings, France helped Britain with supplies of 'mousse' rubber for self-sealing petrol tanks. It was in the field of American supply that the two countries worked most effectively together. The French aircraft mission in the United States became by initiative of Monnet and by decision of the Supreme War Council an Allied mission working under the close oversight of the Anglo-French Air Executive. At its sixth meeting on 28th March 1940 the Supreme War Council approved a plan for the purchase by 1941 of 8,000 engines and 4,700 frames at a cost of \$614 millions. The two Governments thus committed themselves, despite their misgivings about the means of payment, to the expenditures that initiated, or at least immensely hastened the war-time expansion of America's aircraft industry. And when their combined work was thrown into jeopardy by the military collapse of France, one last dramatic act of Allied solidarity salvaged it for Britain. At 3 a.m. on 17th June, Mr. Arthur Purvis and M. Bloch-Lainé signed at Washington an agreement which assigned to Britain, for the token payment of one dollar, all the contracts the French Government had made with American war industry.

Always there is the same concluding note—trans-Atlantic transition. That transition had been most skilfully prepared. In late November 1939, when Monnet secured the chairmanship of the Anglo-French Co-ordinating Committee, a British subject and Canadian citizen named A. B. Purvis was made chairman of the Anglo-French Purchasing Board in the United States. This board was not the complete fusion of national organisations that Monnet had desired, but neither was it the fictional confederation that he had feared; for it had its own combined headquarters and secretariat, and its chairman was vested by his instructions with 'a high degree of

effective authority' as an Allied official representing both Governments through a chain of responsibility the end of which Monnet himself held. To make this high authority practically effective was not, however, an easy matter. The obstacle was not merely national separateness, but departmental separateness existing within each national organisation. The French organisation was in fact no more than a bundle of missions, each separately attached to its parent department. The British Purchasing Commission, of which Purvis (in his national capacity) was head, had no authority to make contracts for the Air Ministry or the Raw Materials Controls or the Machine Tools Control: its original mandate was restricted to orders on the production side of the Ministry of Supply.¹ Both as a British and as an Allied official, Purvis found his work hampered by the 'uncontrolled purchases' which, as he repeatedly complained, 'destroyed his background' with United States industry and the United States Government. Not until the early summer of 1940 did he win decisive success in the struggle to extend his own direct responsibility of purchase, and—what was no less important—to receive as of right complete detailed information about the actions and plans of all other purchasing bodies. This information was essential to him if he were to secure for the Allies, or for Britain alone, a fair share of the expanding American production.

It is true that the expansion of industry under America's 'war preparedness programme' (the American version of rearmament) was, up to the time of Dunkirk, only a trifling affair. Even so, when added to Allied orders and the normal requirements of American civilian industry, it was imposing a visible strain upon the unmobilised and uncontrolled economy of the United States. In the machine tool industry, for example, existing American production was falling short of the total demand of the home civilian market, the war preparedness programme, and Allied orders. Admittedly, there was plenty of room for the more economical use of machine tools in American industry; but should the Allies decide to increase their demand for aircraft and other finished implements of war, a genuine shortage would make itself felt until such time as the Americans created new productive capacity. The shortage might very quickly become critical should the Americans simultaneously enlarge and speed up their own rearmament. The United States Government was anxious to make provision against these dangers, and had

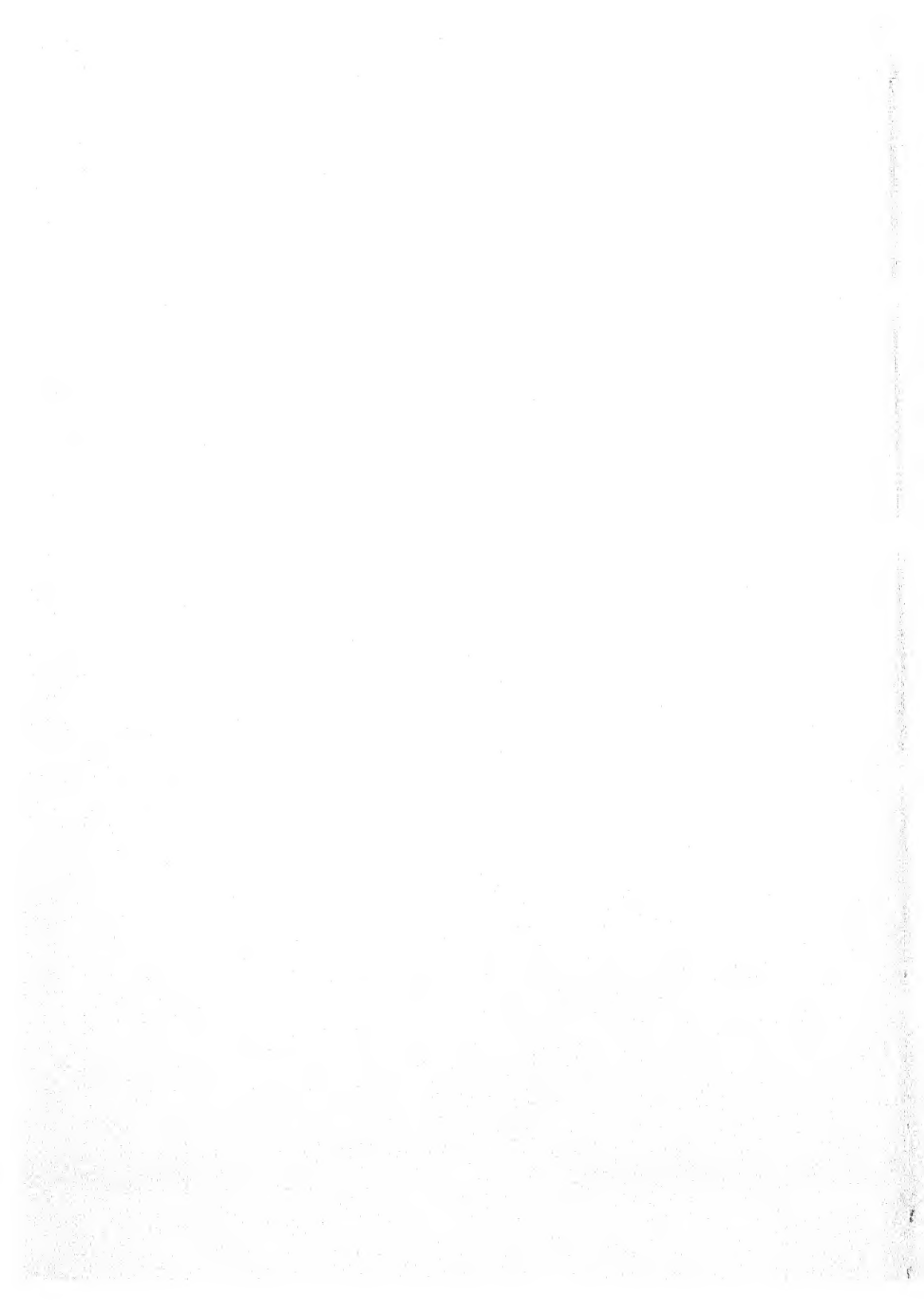
¹ It was not until mid-June that Purvis was given responsibility for the machine tools and iron and steel purchasing programmes. It is also worth noting that up to this time the B.P.C. had been, in form at least, a subordinate branch of the British Supply Board in Canada and the United States. This organisation had been established in Ottawa immediately on the outbreak of war, when the American arms embargo was still unreppealed and Canada was in consequence the only reliable North American territory for the expansion of Allied war potential.

established within the Treasury a 'synchronisation committee' charged with the task of estimating and if possible regulating the competing claims upon American industry. It was essential that the claims of the belligerent democracies should be comprehensively and precisely stated; otherwise they might be swept off the board when the neutral democracy of America made up its mind to vote funds for a large-scale expansion of its own fighting services. Mr. Morgenthau, Secretary to the Treasury, repeatedly warned Purvis of these dangers and repeatedly pressed him for a complete statement covering all Allied requirements. Purvis, in his turn, put persistent pressure upon his masters at home. His warnings were given patent justification when the President of the United States, between 16th May and 10th July, sent three special messages to Congress requesting defence appropriations totalling \$7,100 million—a trivial sum in comparison with the appropriations that came afterwards, but more than three times the money that had been requested in the regular budget message of January 1940.

By this time, Purvis had sufficient authority to state and defend the claims of Britain and the Commonwealth, now fighting alone against Germany and Italy and their satellites. After the fall of France the Anglo-French Co-ordinating Committee had been wound up; but the North American Supplies Committee in London inherited and expanded its functions. The chairman of that committee was Sir Arthur Salter, a friend and collaborator of Monnet's in two wars and in the work of Geneva between the wars. Monnet himself went to America to enter British service under Purvis. The same men set themselves with added resolution to the same work. In London the word was given: 'Talk big and at once.'

PART III

From Dunkirk to Pearl Harbour



Part III: From Dunkirk to Pearl Harbour

STATISTICAL SUMMARY OF THE PERIOD¹

1. NATIONAL FINANCE

(a) *National Income and Expenditure*

	£ million				Percentages			
	1938	1940	1941	1944	1938	1940	1941	1944
1. National income	4,707	6,066	6,978	8,310	100	100	100	100
2. National cost of consumers' goods and services	3,713	3,931	4,006	4,452	79	65	58	54
3. Government current ² expenditure:								
i. War	327	2,600	3,643	4,481	7	43	52	54
ii. Other	440	484	497	536	9	8	7	6
4. Net capital formation at home	297	-145	-352	-500	6	-3	-5	-6
5. Net lending abroad	-70	-804	-816	-659	-1	-13	-12	-8
6. Net national expenditure at factor cost	4,707	6,066	6,978	8,310	100	100	100	100

Figures for national income and expenditure are *net* in that they exclude sums allowed for depreciation and maintenance and are at *factor cost* in that they include subsidies but exclude indirect taxes.

Source: Cmd. 7371 and Central Statistical Office

¹ See note at beginning of first statistical summary, p. 75.

² i.e. local government and national insurance funds as well as central government.

(b) *Personal Expenditure on Consumers' Goods and Services at 1938 Prices*

	£ million			
	1938	1940	1941	1944
1. Food	1,287	1,138	1,036	1,120
2. Alcoholic beverages	285	276	287	274
3. Tobacco	177	178	196	205
4. Rent, rates and water charges	491	508	502	503
5. Fuel and light	197	202	205	193
6. Household goods	288	216	163	100
7. Clothing	446	372	275	275
8. Books, newspapers and magazines	64	59	61	73
9. Private motoring	127	38	30	8
10. Travel	163	132	148	188
11. Communication services	29	27	27	42
12. Entertainments	64	53	75	90
13. Other services	483	438	418	343
14. Other goods	177	162	131	113
15. Income in kind of the Armed Forces	17	67	98	152
16. Total of above items	4,295	3,866	3,652	3,679
17. Adjustment ¹	-7	17	19	27
18. Total	4,288	3,883	3,671	3,706

Source: Cmd. 7371 and Central Statistical Office

(c) *Average Weekly Government War Expenditure: Exchequer Issues of Defence and Vote of Credit Expenditure*

	£ thousands
1939 December	29,600
1940 May	35,500
1940 June	51,800
1940 December	70,600
1941 June	68,800
1941 December	87,800
1944 December	91,100

Source: Central Statistical Office

(d) *Central Government Expenditure, Revenue and Borrowing*

Calendar years	£ million			Revenue as percentage of expenditure
	Expenditure	Revenue	Borrowing	
1938	1,040	893	147	86
1940	3,584	1,397	2,187	39
1941	5,052	2,172	2,880	43
1944	6,078	3,328	2,750	55

Source: Cmd. 7371 and Central Statistical Office

¹ The adjustment is to convert the total in line 16 to a total of purchases out of British income.

(e) *Proportion of Personal Income Required to Meet Taxation*

	£ million			
	1938	1940	1941	1944
Personal income	4,884	5,823	6,508	8,072
Direct tax payments	439	585	770	1,328
Indirect taxes on consumption	611	808	1,045	1,294
less Subsidies on consumption	-36	-88	-137	-202
Total tax payments out of personal income	1,014	1,305	1,678	2,420
Tax payments as a percentage of personal income	21	22	26	30

NOTE: The rise in the proportion of tax payments to personal income was not all due to increases in rates of taxation; it also reflected the increased consumption of highly taxed goods and services—beer, tobacco, entertainments.

Sources: Cmd. 7371 and Central Statistical Office

(f) *Prices and Wages*

	Weekly wage rates: estimated increase in all industries ¹ Sept. 1, 1939 = 100	Average weekly earnings in certain industries ² Oct. 1938 = 100	Cost of living Sept. 1, 1939 = 100	Price index of total consumers' expenditure 1938 = 100	Import prices Aug. 1939 = 100	Export prices Aug. 1939 = 100	Wholesale prices Aug. 1939 = 100
1939 Sept.	100	—	100	—	—	—	108
1940 June	109-110	130	117	} Year 1940 = 120	148	121	137
Dec.	115	—	126		153	132	151
1941 March	119	—	127	} Year 1941 = 134	158	135	154
June	120	142	129		159	139	155
Sept.	123	—	128		162	143	157
Dec.	123-124	146	130		163	149	159
1944 Dec.	145-146	176	130	Year 1944 = 150	See Note 3	See Note 3	170

Source: Central Statistical Office

¹ Some small industries are omitted. Figures for wage rates relate to the end of the previous month in order to make them comparable with the cost-of-living index, which relates to the beginning of the month mentioned.

² The figures represent the average earnings, including bonus, overtime, etc., and before deduction of income tax or insurance, in one week, in January and July of each year. Administrative and clerical workers and other salaried persons are excluded.

³ There are no comparable figures in this series after 1941.

2. MANPOWER

(a) *Total Population of Great Britain*

	Thousands			
	1939	1940	1941	1944
TOTAL . . .	46,466	46,889	46,875	47,627
0-13 . . .	9,231	9,187	9,101	9,239
M. 14-64 . . .	31,923	32,281	32,245	32,386
F. 14-59 } . . .				
M. 65 and over } . . .	5,312	5,421	5,529	6,002
F. 60 and over } . . .				
MALES . . .	22,332	22,632	22,600	22,975
0-13 . . .	4,672	4,656	4,615	4,698
14-64 . . .	15,887	16,168	16,140	16,261
65 and over . . .	1,773	1,808	1,845	2,016
FEMALES . . .	24,134	24,257	24,275	24,652
0-13 . . .	4,559	4,531	4,486	4,541
14-59 . . .	16,036	16,113	16,105	16,125
60 and over . . .	3,539	3,613	3,684	3,986

NOTE : 1. The figures have been given for Great Britain only, to correspond as closely as possible with the tables given elsewhere showing the distribution of manpower by industry. It should be noted however that in the manpower tables the figures for the Armed Forces include an unknown number of recruits from outside Great Britain (mainly from Northern Ireland and Eire) who are not included in the total population figures above.

2. The figures for 1939 exclude men serving overseas in the Armed Forces and Merchant Navy (estimated at between 200,000 and 250,000). From 1940 onwards all members of the Armed Forces and Merchant Navy are included, whether at home or overseas. Prisoners of war in enemy hands are included in 1944, but are mainly excluded from earlier figures.

Source: Central Statistical Office

(b) *Distribution of Labour Force of Working Age in Great Britain*

	Thousands			
	June 1939	June 1940	June 1941	June 1943
Working population:				
Total	19,750	20,676	21,332	22,286
Men	14,656	15,104	15,222	15,032
Women	5,094	5,572	6,110	7,254
Armed Forces:				
Total	480	2,273	3,383	4,762
Men	480	2,218	3,278	4,300
Women	—	55	105	462
Civil Defence, N.F.S. and Police:				
Total	80	345	383	323
Men	80	292	324	253
Women	—	53	59	70
Group I Industries:				
Total	3,106	3,559	4,240	5,233
Men	2,600	2,885	3,140	3,305
Women	506	674	1,100	1,928
Group II Industries:				
Total	4,683	4,618	4,845	5,027
Men	4,096	3,902	3,856	3,686
Women	587	716	989	1,341
Group III Industries:				
Total	10,131	9,236	8,283	6,861
Men	6,387	5,373	4,524	3,430
Women	3,744	3,863	3,759	3,431
Registered Insured Unemployed:				
Total	1,270	645	198	60
Men	1,013	434	100	44
Women	257	211	98	16
Ex-Service men and women not yet in employment:				
Total	—	—	—	20
Men	—	—	—	13
Women	—	—	—	7

NOTE: 1. The figures include men aged 14-64 and women aged 14-59, excluding those in private domestic service. Part-time women workers are included, two being counted as one unit. The figures refer to Great Britain only, except for the the Armed Forces, which include an unknown number of volunteers from Northern Ireland, Eire, etc.

2. Group I covers metal manufacture, engineering, motors, aircraft and other vehicles, shipbuilding and ship-repairing, metal goods manufacture, chemicals, explosives, oils, etc.

Group II covers agriculture, mining, National and Local Government services, gas, water and electricity supply, transport and shipping.

Group III covers food, drink and tobacco, textiles, clothing and other manufactures, building and civil engineering, distribution trades, commerce, banking and other services.

Source: Ministry of Labour and National Service and Central Statistical Office

3. SUPPLIES FROM ABROAD

(a) United Kingdom External Disinvestment

(as far as recorded: probably an under-estimate)

£ million

	1940	1941	Total Sept. 1939– June 1945
Realisation of external capital assets	164	274	1,118
Increase in external liabilities ^{1 2}	179	564	2,879
Decrease or increase (–) in gold and U.S. dollar ^{2 3} reserves .	474	–23	152
Unallocated	–6	5	49
TOTAL	811	820	4,198

NOTE: The figures given in the above table are those in Cmd. 6707 and are the only ones at present available. The totals given in Cmd. 7099 for the years 1940–45 are however slightly smaller, so that the figures in the table will need slight adjustment throughout.

(b) United States Lend-Lease to the British Empire

\$ million

	1941 (March to December)	Total March 1941– Aug. 1945
Ships (sail-away)	65	2,107
Munitions destined for: United Kingdom	86	8,648
Rest of Empire and other war theatres	100	6,886
Other goods destined for: United Kingdom	576	7,442
Rest of Empire	10	1,646
Services	245	3,344
Total aid to British Empire .	1,082	30,073
Aid to other countries . . .	20	2,872

Source: Central Statistical Office

¹ Comprising banking liabilities less assets, and funds held in the United Kingdom as cover for overseas currencies, etc.

² After deduction of outstanding liabilities to provide gold against sterling liabilities and of liabilities to convert U.S.A. holdings of sterling into dollars on demand.

³ Gold valued at 17s. 3d. per ounce fine and dollars at £1=\$4.03.

(c) Exports of Produce and Manufacture of the United Kingdom

	Value as recorded £ millions		Index of Volume 1935=100	
	Including Munitions	Excluding Munitions	Including Munitions	Excluding Munitions
1938 Quarterly average	117.7		98	
1940 2nd Quarter	129.8		91	
3rd Quarter	93.9		63	
4th Quarter	67.6		44	
1941 1st Quarter	79.7		50	
2nd Quarter	81.2		51	
3rd Quarter	85.8		52	
4th Quarter	118.7		69	
1944 Quarterly average	82.1	66.6	38	31

NOTE: 1. As the figures up to the end of 1941 do not show munitions separately, it is impossible to get comparable figures.

2. The index of volume is calculated on quantities revalued at 1935 prices and expressed as a percentage of the quarterly average in 1935.

Source: Board of Trade

(d) Shipping Gains and Losses

Gains and Losses of British Flag Tonnage 1,600 g.t. and over

Gross tonnage figures in thousands

	Gains		Losses		Net Gain (+) or Loss (-)	
	Non- tankers	Tankers	Non- tankers	Tankers	Non- tankers	Tankers
Quarterly average for first nine months of war . . .	283	47	264	58	+19	-11
1940 3rd Quarter . . .	652	65	726	166	-74	-101
4th Quarter . . .	438	29	868	88	-430	-59
1941 1st Quarter . . .	490	68	802	170	-312	-102
2nd Quarter . . .	351	78	1,028	199	-677	-121
3rd Quarter . . .	452	154	465	40	-13	+114
4th Quarter . . .	401	102	296	79	+105	+23
Total for 1941 . . .	1,694	402	2,591	488	-897	-86
Total for 1942 . . .	1,834	277	3,341	693	-1,507	-416
Total for 1943 . . .	2,784	273	1,609	217	+1,175	+56

NOTE: 1. Gains cover new vessels and acquisition of foreign tonnage.

2. Losses cover war and marine losses, captives and miscellaneous.

3. It is important to realise that

(a) figures for gains are no guide to the post-war position since they include ships due to be returned after the war.

(b) figures of gains and losses give only the very crudest guide to the shipping position. Carrying capacity per million tons of shipping is equally important, but this must necessarily be discussed in the text.

4. For definition of gross tons and deadweight tons see p. 80 above.

Source: Ministry of Transport

(e) Imports
Imports under Departmental Programmes
(excluding imports from Eire)

Million tons

	Non-tanker Imports				Tanker Imports ¹
	Total	Ministry of Food	Ministry of Supply	Munitions, Miscellaneous	
<i>Quarterly average 1934-38</i>	13.75	5.5	6.5	1.75	4.1
<i>Quarterly average October 1939 to end of June 1940 . . .</i>	11.3	5.5	5.5	0.3	3.2
1940 3rd Quarter . . .	10.3	4.3	5.8	0.2	2.7
4th Quarter . . .	8.4	3.2	5.0	0.1	2.6
1941 1st Quarter . . .	7.0	3.1	3.7	0.11	2.3
2nd Quarter . . .	7.9	3.9	3.7	0.24	3.3
3rd Quarter . . .	8.2	4.2	3.8	0.21	4.4
4th Quarter . . .	7.8	3.5	4.0	0.23	4.0
Year 1941 . . .	30.5	14.7	15.0	0.78	13.6
Year 1942 . . .	22.9	10.6	11.5	0.8	10.7
Year 1943 . . .	26.4	11.5	12.8	2.0	15.1

Source: Central Statistical Office

¹ Petroleum products, molasses, unrefined whale oil, industrial alcohol and, from January 1943, acetone.

(f) Stocks of Food and Raw Materials in the United Kingdom

Million tons														
End of month	Food and animal feeding stuffs				Raw materials		Petroleum products	Principal commodities						
	Total	Stocks other than on farms	Stocks on farms	Total ¹	Covered by import programme	Iron-Ore ^a		Steel ³	Timber ⁴	Non-ferrous metals ⁵	Wheat	Flour		
Beginning of War	10.5	3.7	6.8	13.1	11.8	6.7	2.4	1.0	3.9	0.7	1.0	0.3		
1939 December	7.5	3.8	3.7	12.2	10.7	5.8	1.9	0.8	3.4	0.7	0.8	0.3		
1940 June	5.1	4.9	0.2	11.5	10.1	6.3	2.3	0.8	2.8	0.7	1.4	0.7		
December	10.6	5.1	5.5	14.4	12.5	5.4	2.0	1.7	4.1	0.8	1.3	0.7		
1941 March	6.9	4.5	2.4	13.9	12.2	4.6	1.7	2.0	4.0	0.8	1.0	0.6		
June	5.2	5.0	0.2	13.8	12.3	4.7	1.9	2.2	3.5	0.8	1.6	0.7		
September	11.6	5.7	5.9	14.4	12.8	6.0	2.0	2.5	3.3	0.8	1.7	0.9		
December	13.4	6.4	7.0	14.7	12.9	7.0	2.1	2.6	3.0	0.9	1.4	0.9		

¹ Excluding consumers' stocks of steel.

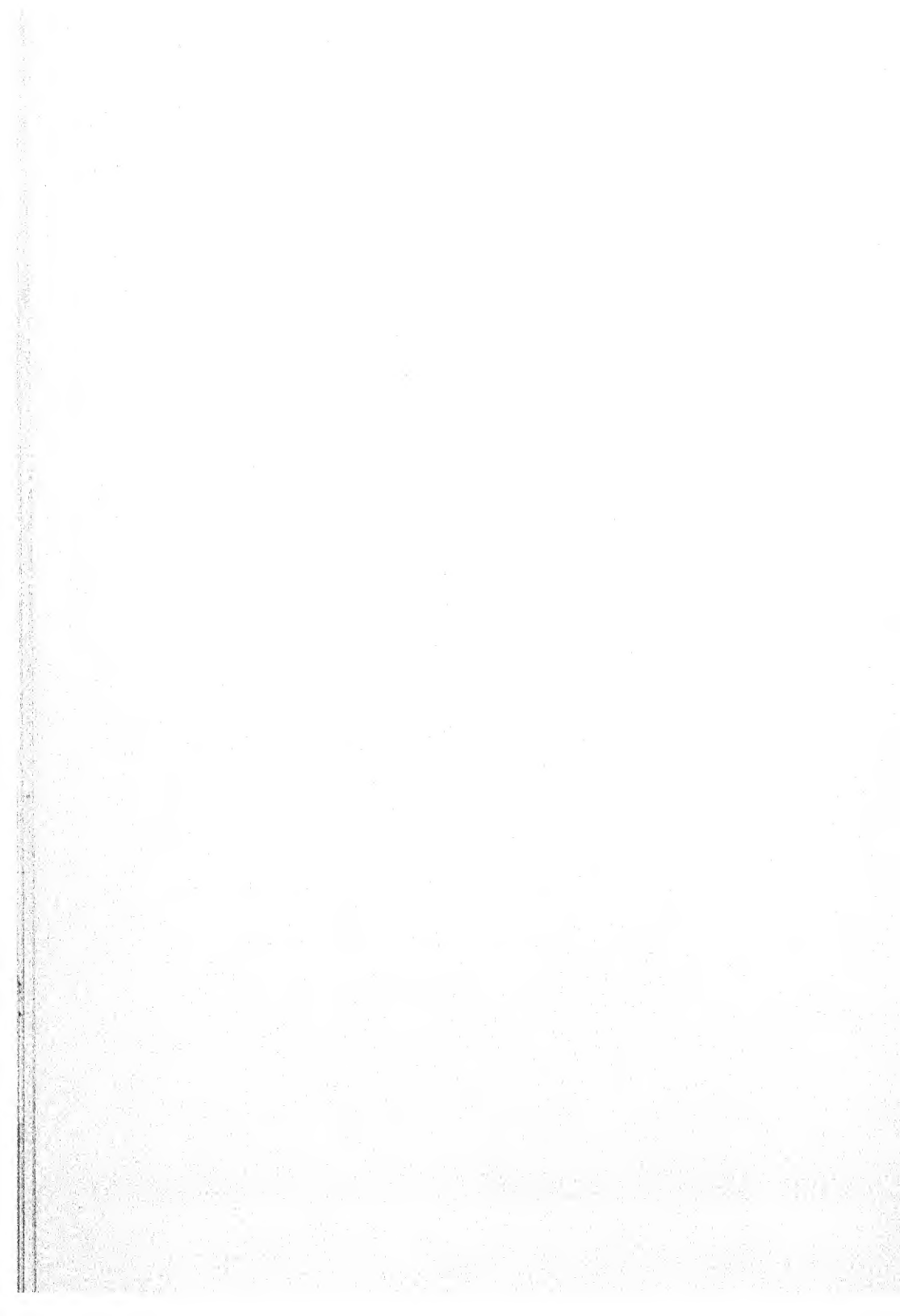
² Including home produced iron-ore at the imported equivalent.

³ At producers' works and in British Iron and Steel Corporation stockyards, including material in transit. Consumers' stocks are excluded.

⁴ Softwoods, hardwoods, pitwood and constructional plywood.

⁵ Copper, zinc, zinc concentrates, lead, tin, nickel, bauxite.

Source: Central Statistical Office



CHAPTER VIII

‘IF NECESSARY FOR YEARS, IF NECESSARY ALONE’

MODERN wars cannot be fought, nor can their history be understood, without the aid of statistical measurement. In the period now to be recorded, the British Government refined its techniques of measurement and extended their use: in consequence, the historian of British war economy, prone though he may be to grumble about his data, is able to express an increasing part of it in numbers. Yet at the very outset he finds himself confronted with a fact, and that the most important of all, which admits no numerical representation. The significance of this fact had been divined, years before the war, by the planners of British manpower, who confessed that all their arithmetic must remain hesitant and unreal unless and until the British people should show themselves ready to give their services upon command, and should provide themselves with a Government strong enough to accept the responsibilities of command.¹ That happened after the decisive House of Commons debates of 7th and 8th May 1940 upon the conduct of the war. On 10th May, Mr. Churchill's all-party Government took office and power. On that same day the Germans invaded Holland and Belgium.

Amidst the disasters of the next weeks and months, Britain and the British Commonwealth began to win the war. The statement is deliberately paradoxical: in terms of statistics it would make no sense for 1940—not, indeed, for a long time after that. To a detached observer in June 1940 it would have made no sense in any terms at all. But detached observers of that time did not see everything; nor did they understand everything they saw. The British people themselves had been throughout the past winter too much detached from the war. They now passionately attached themselves to it. This was the great transforming fact, the motive power of all subsequent achievement. A united Government and people made victory their watchword.

The evacuation from Dunkirk was completed on the night of 3rd June. Next day Mr. Churchill found it expedient to remind the House of Commons that Dunkirk was a great British defeat. The nation had been acclaiming it as a great deliverance. Ordinary people were looking forward to a new match ‘on the home ground’.

¹ See p. 62 above.

Mr. Churchill tempered their ardour by warning them that the approaching battle would be no more than the prelude to long years of struggle.

. . . If all do their duty, if nothing is neglected and if the best arrangements are made as they are being made, we shall prove ourselves able once again to defend our island home, to ride out the storm of war, and to outlive the menace of tyranny, if necessary for years, if necessary alone.

In that summer, when it might well have seemed vain to take thought for any but the most immediate of morrows, the Government was thinking and working in lengthening dimensions of time: the days ahead, the weeks and months ahead, the years ahead. In the short run, there was no longer any meaning in the old deliberate plans of mobilisation for a three years' war; British survival depended on the efforts of the next weeks and days. But, as immediate dangers were in rapid succession fended off, the forward view of work and battle lengthened into a future no longer closed by the clear horizon of three years. From the series of improvisations that made survival possible, a long-term plan once again took shape; though of the manner and the time in which the plan would bring victory there could be no prediction.

In early June, while the little ships were still clearing the Dunkirk beaches, the Government was preparing to send new divisions into Normandy. In mid-June it announced its proposal of indissoluble union between the British and French peoples. Next day Marshal Pétain's Government surrendered to Hitler, and there was immediate danger of the French Navy falling into German hands. That danger was fended off at Oran. In August, while the invasion forces across the Channel were awaiting the issue of the great air battles, the War Cabinet sent reinforcements of armour and artillery to General Wavell's Army of the Nile. In October, when the Battle of Britain had been won and the Germans were switching their bombers to the continuous night bombardment of British cities, it sent heavier reinforcements to Egypt. They did not arrive in time to support the two divisions with which General Wavell won his December victories. In these months there had been no magical mobilisation, no sudden discovery of the secrets of planning; in Egypt and over England the decisive battles were won by resurrection of the national will, together with quick improvisation, daring, and such scanty resources as had been provided by the limited effort of an earlier time. But the unlimited effort of the years ahead was all the time taking shape.

A document prepared by the economists in the War Cabinet Offices bears the title *Urgent Economic Problems* and the date 3rd June 1940—the last day of Dunkirk. The proposals contained in this document were comprehensive—the scientific programming of imports, the

resolute building-up of stocks, the increase of dollar-earning exports wherever they could be produced without detriment to war production, the intensive mobilisation of fighting and working manpower, the drastic curtailment of civilian consumption, the policies of distribution and finance that would make the sacrifices of civilians equitable and endurable. In all this, there was nothing that could sway the impending battle. Victory in that battle, however, won time and as the war became calculable once again in months and years instead of weeks and days, the economic problems that had been listed did indeed become urgent. Upon their quick mastery depended the possibility of final victory in a still distant time.

The chapters that follow will discuss these economic topics, each in its due order. Together, they were the constituent elements of a co-ordinated war economy which was itself embedded in war strategy. The present chapter will first outline the strategical background and then briefly review the institutional means whereby economic co-ordination was achieved.

* * *

In the long history of the British people the experience of 1940 was not all new. There had been other years in which they had been left to fight a lonely battle for national freedom and the public law of Europe. Their stubbornness in these past crises had made them the constant rallying centre of new coalitions. In 1940, there was no reason to despair of history thus far repeating itself. Meanwhile, Hitler dominated the continent of Europe, as Napoleon had dominated it before him. The basic requirements of defence were still the same. First among them was the security of the United Kingdom. From 1940 until the time of deep German involvement in Russia, the threat of direct invasion from across the Channel set severe limits to the strengthening of British forces further afield.

There was another well-remembered threat. The Germans would certainly once again attempt what they had so nearly achieved a generation earlier, the starvation and strangulation of Britain by cutting off her overseas supplies. This time the enemy was better based for his attack and could command a greater variety of means. He could launch aircraft as well as U-boats against ships at sea and could bombard British ports from the air. By March 1941, Britain's shipping difficulties had become her greatest danger. The story of these difficulties and of how, towards the end of 1941, they seemed to be conquered, is told in a separate chapter.

The main convoy battles were fought on the direct Atlantic approaches to the United Kingdom; but the struggle for command at sea spread, as it had always done, to other waters and coasts. It was necessary to prevent the Germans from extending the chain of

bases from which they could attack British routes of communication and supply. They might attempt an advance through Spain and Portugal, an assault upon Gibraltar, the complete dominance of the western Mediterranean. They might try to seize the Atlantic islands. They might infiltrate into French West Africa and menace the British base at Freetown. Italy's entry into the war had already put Malta in a precarious position. The warding off of so many dangers was a severe burden upon the Royal Navy, whose resources were already at fuller stretch than they had ever been in the 1914-18 war, and upon the air and land forces that were so badly needed at home. In Spain, everything rested upon diplomacy; but reinforcements were sent to West Africa and Malta, and an expedition was made ready to forestall the Germans in the Atlantic islands should the moment come.

Most critical of all was the situation in the eastern Mediterranean and the whole Middle East. Other countries sometimes had difficulty in understanding why Britain gave to the defence of the Middle East such high priority. But at the other end of the Suez Canal lay the approaches to the Indian Ocean. Apart altogether from the Iranian oil and the other valuable supplies that came from countries bordering this ocean, the security of its communications was held by the Chiefs of Staff to be an essential condition of the British Commonwealth's war effort and, indeed, its very existence. To hold an outer ring of defence was not enough; it was necessary to keep the enemy out of Egypt, Syria, Iraq, Iran and Turkey: otherwise he would master the whole Mediterranean and the approaches to India. Moreover, on the further side of India the Japanese had fixed their eyes menacingly upon Indo-China, Siam, Malaya, the Netherlands Indies—possibly even upon Australia. The Chiefs of Staff advised that to reinforce the Australian defences Britain must be prepared in an ultimate emergency even to abandon the struggle in the Middle East. Such a decision would be desperate indeed. It need never become necessary if relentless fighting in the Middle East safeguarded one entrance to the Indian Ocean while the other entrance was held and the southward movement of Japanese forces checked by a reinforced 'Malaysian barrier'. Singapore, covered on one side by the Malayan mainland and strengthened on the other side by the air bases in Borneo, was the key point of this barrier. Its defence was held to be a major necessity of grand strategy, second only to the defence of the United Kingdom.

Prospects of success in this basically defensive strategy fluctuated with the fortunes of battle and the turns of diplomacy. Early in 1941 the War Cabinet took the risk of offering direct challenge to the invading Germans on the mainland of Greece; a few months later it was struggling to avert a complete caving in of the Middle Eastern defences, not only in Crete, Libya and Egypt but also in the back

areas of Syria, Iraq and Iran. Throughout the whole period, despite some fleeting gleams of victory, British power on land and sea and in the air was being strained almost to breaking point. From all over the world came demands for more divisions, more army equipment, more air squadrons, more naval help and sometimes for all four at once. Early in June, the Chiefs of Staff were emphasising that only the most inexpensive of new commitments could be undertaken unless very grave risks were to be imposed upon the whole defensive system. A few days later, the Germans invaded Russia. Here at last was the prospect of a decisive long-run transformation of strategy; but its short-run consequence was an immediate and desperate call for a second front in Europe—a call that Britain could not possibly answer.

Ever since the fall of France the British had been struggling desperately not to lose the war. But how did they propose to win it? They certainly could not win it by producing new, astronomical programmes for the armed forces. In September 1940 the existing programmes of munitions production had been reviewed and confirmed. It was hoped to have all the fifty-five Army divisions ready by the summer of 1942 and to have ready, somewhere about the end of 1942, 6,600 front-line aircraft. Of course, the balance of the programmes was altered from time to time. It was, for example, necessary to keep under constant review and from time to time to modify the balance between the building of capital ships and lighter ships, between the Royal Navy and the Merchant Navy¹ and between new building and repairing. The Air Force programme reflected an important trend in the development of strategical thought; for by the summer of 1941 a front-line strength of 4,000 heavy and medium bombers was being planned instead of the 2,800 contemplated a year earlier. These numbers could not be achieved merely by switching human and material resources from the lighter to the heavier types; they necessitated large increases in the total of aircraft production as well as in the establishment of the R.A.F. But the fixed boundary to the expansion of military and industrial manpower and other resources was already coming into sight: if a larger share were devoted to one Service, the requirements of the others would have to be severely scrutinised and possibly curtailed. And all the time it was essential to keep a proper balance between the nation's fighting and working strength. In the autumn of 1940, the Prime Minister had insisted upon a higher proportion of armoured divisions in the Army, no matter what the difficulties might be. In the spring of 1941 he fixed a definite ceiling to the Army's numerical strength.

These difficulties will be examined in greater detail in the next manpower chapter. Here it is sufficient to observe that the British,

¹ It was in this period that the decision was taken to make a continuing sacrifice in the building of merchant ships for the sake of naval building.

despite the formidable expansion of their strength, could not afford to indulge themselves in day-dreams of a magical multiplication of their forces and equipment. In retrospect it has now become clear from captured enemy documents that the pace of British effort in this period was far outstripping the German one; but the Germans and their Italian allies, not to mention the threatening Japanese, had already established themselves in the dominating positions. The British were compelled to fight a defensive war: they fought it in an offensive spirit. Even in June 1940 the Prime Minister had given warning that an overdose of the defensive atmosphere might induce that 'mental and moral prostration to the will of the enemy' which had ruined the French. He called for the organisation of Commandos to raid enemy and occupied lands and keep the Germans wondering where they would be struck next. In the Middle East, too, the order was not to sit tight in Egypt but to drive the Italians out of East and North Africa. For a time it was hoped to eliminate Italy from the war; but this hope faded as the Germans brought Italy under their own control. There were disappointments great and small; yet in the month before Pearl Harbour the desert army engaged itself once again in an offensive against the German-Italian forces in Libya.

These attacks on the perimeter could not bring about the downfall of German power. Nor was there as yet any possibility of a frontal attack against Europe. The Chiefs of Staff drew some comfort from the reflection that the strength of a country's economy and of its morale were objectives of decisive importance: unremitting pressure against these objectives could wear the enemy down. Opinions about the effectiveness of the blockade weapon varied. It was generally admitted that Germany's control of Europe had put into her hands so many sources of essential supplies that the weapon was now blunted. Nevertheless, hope was put in the cumulative effect of a large number of German difficulties and deficiencies, none of which was in itself decisive. Still greater hope was built upon the German shortage of oil: in the autumn of 1940 British experts were estimating that the shortage might by the end of 1941 become disastrous to the enemy. Subsequently it was realised that the leaks in the blockade had been too big; but even so, the denial of oil to Germany was not least among the reasons for clinging so tenaciously to the British position in the Mediterranean.

To recapitulate: a military offensive at the centre was not yet possible; but it could be prepared by aggressive warfare against the enemy's economic strength and morale. In this warfare the blockade, though still important, would need to be reinforced by other weapons. Sabotage and propaganda must be organised in enemy-held territories and Germany must be bombed. It might seem strange that the British, who had made no effective retaliation for Warsaw

when they held the advantage of position, should decide to enter the bombing competition when their own cities were overlooked by the enemy's airfields on the Atlantic coast and the enemy's cities were screened by a wide belt of heavily defended territories. Indeed, it was inevitable that British cities should for a long time suffer more heavily than German ones. But there was no other way of making the conquering Germans swallow in their own homeland the nasty medicine of war. 'The bombers alone', wrote the Prime Minister in the autumn of 1940, 'provide the means of victory. We must therefore develop the power to carry an increasing volume of explosives to Germany so as to pulverise the entire structure on which the war effort and economic life of the enemy depends.' Confidence in the ultimate effects of bombing grew and in 1941 the production target was raised, as has been seen, to a front line force of 4,000 heavy and medium bombers.

To estimate the effects of bombing upon Germany, in this or any other period of the war, lies outside the scope of the present book and, indeed, the whole series of civil histories.¹ All that is here required is an outline of the strategical concepts in which economic policy was framed. It was realised in 1941 that the decision to expand the production of bombers could hardly begin to produce important military effects until 1942-43. Even then, the war might drag out to an appalling length if the only way of ending it was to hammer German productive power and morale from the air. The Germans, therefore, would have to be speeded down the road of collapse by direct military assault. Even in the years of desperate British defence, the British planners looked forward to D-Day.

For a nation that was encompassed by so many and great dangers, it was a brave act of faith even to envisage the frontal assault upon Hitler's European fortress and the final overthrow upon Continental battlefields of German military power. The detailed and realistic planning of such vast operations could not possibly begin at a time when the forces and their equipment were scarce on all the fronts from London to Singapore. Even if the most generous estimates were made of armed uprisings in the subdued countries of Europe, the manpower sum did not work out. D-Day, therefore, was in 1941 'the distant future'. When would it come? There was little attempt to conceal the feeling that, without the active belligerency of the United States, it might remain a dream.

* * *

In 1940, the British Government was still groping towards effective policies for the mobilisation of men and machines, shipping and

¹ A preliminary estimate is contained in the *United States Strategic Bombing Survey*, mentioned above (p. 71).

money. In 1941, it found them and could thereafter move rapidly to the peak of a great war effort.

This advance would have been impossible if the machinery of government had not been working reasonably well. It was not, it will be remembered, a question of legal authority.¹ The powers taken at the beginning of the war were very nearly comprehensive and they were made complete by the emergency powers over persons and property granted by Parliament in May 1940. Far less satisfactory, when Mr. Churchill formed his all-party administration in that month, was the central organisation of government.

On the defence side, the new Prime Minister saw his way clearly. He saw no reason to change the Chiefs of Staff Committee and its subsidiary organisations; as Minister of Defence, he took into his own hands the direct management of this machinery. To assist him, he instituted two Defence Committees, the one for operations, the other for supply. The main feature of the system was its flexibility. There is no need to record here—though on the supply side the matter will later on claim brief mention—the varying composition of the Defence Committees and the fluctuations in their spheres of activity. Nor is there any need to recall the protests and attacks that were made against the system in days of adversity. It was often said then that the offices of Prime Minister and Minister of Defence should not be combined in the same person; but in the end all but the most factious or captious critics recognised the combination of Mr. Churchill and the Chiefs of Staff (for that was the core of the system) as a war-winning one. In substance, it continued unchanged from the summer of 1940 until the war had been won.

On the civil side, remedies for the early shortcomings of central direction and control were not so easy to find. It was, nevertheless, very important to find them, and even while the battle was raging in Belgium the Prime Minister made his first experimental reorganisation. He wanted to reduce the number of committees which ministers were expected to attend and also to find some answer to the insistent criticism that there was no central direction of the economic effort. Yet the changes he announced on 4th June hardly fulfilled these hopes.² Six main civil committees emerged from the reorganisation. The Civil Defence Committee and the Food Policy Committee continued unchanged. The Home Policy Committee also continued, but henceforward was to contain two sections—one for legislation, the other to deal with problems of the home front and the social services. The Ministerial Economic Policy Committee was given a considerably enlarged membership and wider terms of

¹ See Chapter III, section (i).

² See H. of C. Deb., Vol. 361, Cols. 769-771 (4th June 1940).

reference, being authorised from now on to 'concert and direct general economic policy'. The ineffective Ministerial Priority Committee was replaced by a Production Council which was to determine priorities and generally to direct and oversee the production drive: the Council retained the existing sub-committees on priorities for materials, manpower, building and transport, and added two more—one on industrial capacity and another to report on the manpower requirements of production programmes. Lastly, a new 'steering' Committee, the Lord President's Committee, was established. Its function was to co-ordinate the work of the other five civil committees and to ensure that no part of the field was left uncovered.

The numbers and functions of most of the main civil committees had not been radically changed. Nevertheless, there were important new principles at work. Officials no longer held a high place in the system: for example, the 'two-decker' structure of the committees on food policy and economic policy disappeared by elimination of the sub-committees of officials. More important were the new methods whereby co-ordination was sought. When Mr. Chamberlain was Prime Minister, much reliance had been placed upon the Treasury's predominance in the system of civil committees. The role of the Treasury was now greatly reduced. The chairmanship of the Economic Policy Committee and the Production Council was given to the Minister without Portfolio (Mr. Greenwood), while the Lord Privy Seal (Mr. Attlee) became chairman both of the Food Policy Committee and the Home Policy Committee. This was one method of seeking co-ordination—to make the same War Cabinet Minister chairman of two committees, and at the same time to make generous provision for overlapping membership. A second and more effective bid for co-ordination was made through the Lord President's Committee. Its membership was confined to the chairmen of the other civil committees, together with the Chancellor of the Exchequer and the Minister of Supply. Its willingness to take firm hold of the powers ascribed to it was very soon shown when it decided that no problems in the sphere of home affairs and economic policy should go from the other committees to the War Cabinet until it had itself first discussed them. It proved to be the most permanent element in the reorganisation of the summer of 1940.

This reorganisation had been made in haste at a time of great stress. When the Prime Minister surveyed the system of civil committees at the end of 1940, it was clear that no answer had as yet been found to the complaints about the lack of unified and comprehensive direction in the sphere of economic policy. In Parliament and in the newspapers various suggestions for reform had been put forward: some people wanted to see all economic power vested in a single minister, others advocated a planning committee composed of

ministers who, having been freed from all departmental responsibilities, would be able to give their undivided attention to economic policy. The Prime Minister did not believe that either of these proposed remedies would work. He did not think it feasible to create on the civil side a minister who would exercise the same authority as the Minister of Defence did on the military side. He himself could effectively discharge his functions as Minister of Defence only because he was Prime Minister also. Moreover, the work to be done on the civil side was far more complicated; it touched an infinite number of interests and any attempt to impose there the same kind of direct centralised control would lead to endless friction. Nor was it likely that harmony and efficiency would be served by instituting a superior ministerial directorate of economic planners. It was, for example, not easy to envisage Mr. Ernest Bevin either as an economic planner without any direct responsibility for controlling the nation's manpower, or as the mere instrument, in his departmental sphere, of a manpower policy laid down by a superior and aloof authority. Policy and executive responsibility could not be so easily divorced. Indeed, the Prime Minister was at that time seeking solutions of a quite different kind. 'Committees', he wrote, 'which are advisers or consist of persons without the administrative machines and departments at their disposal and without responsibility for making good any decisions to which they come, are an encumbrance from which I am sedulously endeavouring to free our system.'

The Prime Minister decided to try the experiment of entrusting specific powers of decision under important heads of economic policy to small groups of ministers who in their departmental capacities must carry the responsibilities of executive action. To clear the ground, he abolished both the Production Council and the Economic Policy Committee, diverting the Minister without Portfolio, who had been chairman of these two unwieldy and ineffective bodies, to the studies of post-war planning. In place of the Production Council, the Prime Minister instituted a small Production Executive¹ in which the Minister of Labour and National Service and the three ministers responsible for the Service programmes were the chief members. The Production Executive was intended to look after the allocation of materials, labour, industrial capacity, etc., and to establish priorities where necessary. An Import Executive was also set up. Its task was to explore the whole import situation—the rival claims upon shipping of military strategy and imports as well as priorities between different

¹ In October 1940, the Prime Minister had hoped to secure a higher integration of war production by giving Lord Beaverbrook the double office of Minister of Supply and Minister of Aircraft Production. Lord Beaverbrook's health, however, did not permit him to accept the invitation and the idea was dropped. (*H. of C. Deb.*, Vol. 377. Col. 1402. 10th February 1942.)

classes of imports—and also to secure co-ordination between unloading at the ports and inland transport.

The institution of these two 'Executives' fell a good way short of a complete reorganisation at the centre. There were many functions of economic policy still waiting to be bestowed. They were bestowed upon the Lord President's Committee. It still retained responsibility for 'steering' the business of the other civil committees. In addition, it now had committed to it those 'large questions of economic policy' that formerly had belonged to the Economic Policy Committee. The Prime Minister was anxious about these questions. 'They raise', he said, 'the most difficult and dangerous political issues. These issues were not solved in the last war and I cannot pretend they have been solved in this. If the Lord President's Committee . . . cannot present satisfactory solutions, I do not know where to look for the means.' The Committee was therefore empowered to keep continuous watch, on behalf of the War Cabinet, over the general trend of economic development, and the Lord President himself was urged to exercise vigorous personal leadership.

This reorganisation of War Cabinet machinery on the civil side was announced in the first week of January 1941 and was on the whole well received;¹ but during the next twelve months it did not altogether work out according to expectations. The performance of the two 'Executives', which had been framed for action rather than for debate, proved disappointing. The Production Executive never took charge of the main production plans, which in this period were substantially determined in the Defence Committee (Supply). In the last half of 1941, it met only five times. Meanwhile, there had been insistent public demands for a Minister of Production to co-ordinate the activities of the three Supply Departments. Early in 1942 the Prime Minister decided that a Minister of Production had become necessary, not for the reasons hitherto advanced, but to handle the new problems of international co-ordination arising from America's entry into the war. The Production Executive then finally lapsed. The Import Executive had been only a little more successful. After all, the whole import situation was governed by the allocation of shipping between military and civil uses, and this was a matter which could hardly be settled below War Cabinet level. Moreover, one of the specific difficulties which the Import Executive had been instructed to tackle—the co-ordination of port management and inland transport—was tackled in another way when the Ministries of Shipping and Transport were fused together in May 1941 as the Ministry of War Transport. Meanwhile, in March 1941, the Prime Minister had begun meetings of a Battle of the Atlantic Committee,

¹ The reorganisation was announced in *The Times* on 7th January 1941 and debated in the Commons a fortnight later (H. of C. Deb., Vol. 368. Cols. 81-150, 21st January 1941).

which at the beginning concerned itself chiefly with operational matters but soon went on to consider anything to do with imports. The Import Executive continued its rather attenuated existence until May 1942. It then gave place to a Shipping Committee which was instituted at the official level, not to decide, but to report.

Against the decline and fall of the two 'Executives', there stands in brilliant contrast the career of the Lord President's Committee, which became during 1941 the most important focus of civil government under the War Cabinet, handling and settling a great deal of the business which the War Cabinet itself would otherwise have had to carry as an additional burden. The Committee did not specifically concert and direct the work of the other civil committees as its terms of reference empowered it to do; but it dealt successfully with almost all those 'large issues of economic policy' about which the Prime Minister—and many of the Government's critics—had been so deeply concerned. During most of 1941 these issues—prices and wages, compensation, the level of home consumption, rationing, concentration of industry, mobilisation of manpower—occupied the most prominent place on the Committee's agenda, along with other economic problems of an emergency or 'crisis' character—such as the supply of coal, rubber, petroleum and other materials that were seriously scarce. Before the end of 1941 the main lines of economic policy had been clearly determined. Having mastered its economic task, the Lord President's Committee began effectively to take hold of the more general home front problems which the Home Policy Committee had been intended to solve. In February 1942, the home front and social services section of the Home Policy Committee was abolished and its functions were formally transferred to the Lord President's Committee. During the same period, the Food Policy Committee had been declining; for all the more important food questions were bound up with those wider issues of which the Lord President's Committee had taken control. In February 1942 the Lord President himself became Chairman of the Food Policy Committee. He found small advantage in perpetuating its separate existence; it met only twice in 1942 and did not survive into 1943.

The Lord President's Committee had thus achieved pre-eminence in the civil sphere: of all the other committees that had once been prominent, only the Civil Defence Committee and the Legislation Committee (originally the Legislation section of the Home Policy Committee) survived. Yet it would be an exaggeration to say that complete unity of governmental direction had been established over the whole range of British war economy. The interpretations of economic data submitted by the Prime Minister's Statistical Branch, a small group of economists and statisticians organised under Lord Cherwell, frequently made a positive contribution to the formulation

of policy on such diverse matters as food and shipping, the production of weapons and the size of the land forces. Meanwhile, formal organisation at the centre still left a rather uncertain frontier athwart the territory where the strategical forces merged with the economic ones. In the days of the Production Executive, production problems arising directly from the strategical plans had in practice gone to the Minister of Defence and his experts, i.e. to the Defence Committee (Supply), and afterwards there remained some uncertainty in the division of the field between the Lord President's Committee and the Ministry of Production. In general it might be said that the Lord President's Committee concentrated its attention upon the economic consequences arising from the suction of resources into the war production zone, but did not take responsibility for the positive employment of resources in that zone. Nevertheless, the allocation of manpower was made under the Lord President's aegis up to the end of 1943; Sir John Anderson then retained this responsibility when he left the office of the Lord President to become Chancellor of the Exchequer.

Apart from his work in committee, the Lord President personally exercised co-ordinating functions over a wide field. Sometimes he took action in response to requests made to him to arbitrate upon interdepartmental disputes; sometimes he handled problems—for example, the distribution of coal during the winter of 1940-41—remitted to him by the War Cabinet. And often the Lord President was asked to focus, for decision by the War Cabinet, issues of general policy which concerned several departments—for example, the allocation of manpower, the heavy-bomber programme, or plans for the military occupation of Persia.

This work of co-ordination was done with a very small staff. The Lord President's personal staff consisted only of a junior private secretary and a senior personal assistant: however, he was able at need to draw help from the War Cabinet Secretariat, and particularly from the economists and statisticians established within it. Between Dunkirk and Pearl Harbour there occurred a notable advance in the harnessing of economic and statistical intelligence to the tasks of government. It will be remembered that the Stamp Survey had formed a Central Economic Service to assist its researches. After the change of government in May 1940, this Service was greatly expanded. The first fruits of this expansion were two series of statistical digests, which for the first time assembled the main heads of information necessary for keeping under continuous review the economic problems of the war. In January 1941, the Stamp Survey ceased and the Central Economic Service was split into two separate sections—the Central Statistical Office and the Economic Section—both belonging to the War Cabinet Secretariat.

The function of the Central Statistical Office was to collect from government departments regular series of figures on a 'coherent and well ordered basis covering the development of our war effort'; by direction of the Prime Minister, these figures were to form an agreed corpus, not subject to departmental argument, but accepted and used without question. They were not, of course, restricted to the civilian side of the war effort: the work of the Central Statistical Office covered the military departments as well. The range of the Economic Section was, perhaps, rather more restricted. Its duties comprised the collection of economic intelligence and the preparation of economic surveys. Probably the most important part of its work was advising the Lord President on the economic problems that came before him, in committee or otherwise.

It should be emphasised that, during this period, the economic and statistical advice available to the majority of government departments was similarly increasing. Possibly the most notable advance occurred at the Treasury, where, in the autumn of 1940, Mr. J. M. Keynes was appointed economic adviser. No attempt can be made here to estimate the growth and consequences of Keynesian influence at the Treasury; but reference must be made to one interesting product of collaboration between the Treasury and the economists and statisticians of the War Cabinet Offices. In April 1941 appeared the first white paper on national income and expenditure.¹ During the first period of the war, the Government had been singularly lacking in appreciation of the overall design of the national economy. Economic and statistical experts outside government service had tried to assess the capacity of the country to meet the increasing demands of war; but had found that the statistics available for estimating the potential income of the nation and the proportion the Government could take for direct war purposes were very inadequate.² In the summer of 1940, the Government's statisticians and economists set out to remedy this deficiency. By the end of 1940 they had made preliminary estimates of national income and outlay. Meanwhile, private estimates were still being made by economic journalists and writers who held responsibility for influencing public opinion, but had no access to the official work. These private estimates differed widely from the official ones. The Treasury therefore decided that the official estimates should be published, together with the official analysis of the sources of war finance. The white paper which resulted was warmly greeted, and showed that in this particular branch of political arithmetic England still held the lead first gained for her by Sir William Petty and Gregory King in the seventeenth century.

¹ Cmd. 6261.

² See e.g. J. M. Keynes, *The Income and Fiscal Potential of Great Britain* in the *Economic Journal*, December 1939.

The figures of the white paper and of its improved successors are used throughout this book when they have immediate relevance to the problems under study; but in the chapters that follow emphasis will necessarily be laid upon the nation's specific physical resources, and the manner in which they were employed. The present brief review of the institutions of economic policy-making should therefore close by emphasising once again the pre-eminence gained by the Lord President's Committee in determining, over a wide range, the manner in which specific economic problems were tackled. For the benefit of such ingenuous political scientists as may be prone to pore too closely over organisation charts, one word of caution needs to be added. The rise of the Lord President's Committee has been recorded in its main phases; but it has not been fully explained. A full explanation would, of course, do justice to institutional factors, such as the small, fixed membership of representative ministers (mostly War Cabinet members) which gave the Committee a corporate entity and continuity of policy; but it would also lay considerable stress upon those biographical aspects of war history which are, of set purpose, omitted from the present book. Here it need only be said that the history of an institution is also the history of the men who exercised leadership within the institution. Just as the collaboration between Mr. Churchill and the Chiefs of Staff gave the Defence Committee its own special character, so also did the Lord President's Committee take its stamp from the personality and endowments of Sir John Anderson and the manner of his collaboration with his civilian advisers.

CHAPTER IX

LEND-LEASE

(i)

Growth of American Support

EVEN in the darkest months of 1940 and 1941, the United Kingdom did not fight alone. The resisting European Governments found sanctuary in Britain, small bands of fighting Frenchmen, Poles, Norwegians, Dutch, Belgians and Czechs took up battle stations with the British forces, while in their subdued homelands obstinate patriots tuned in to Big Ben and formed with each other those first conspiratorial groupings that grew later into the Resistance. Moreover, in the early winter of 1940, while Wavell's men were winning the first desert victories, the Greek state and people flung back Mussolini's attack. For the British people, these were great months—fit climax to the Battle of Britain and fit reward for their civilian fortitude. The reward and the respite were all too brief, for the spring of 1941 brought heart-breaking defeats. But in mid-summer the war reached that 'fourth climacteric' proclaimed and welcomed by Mr. Churchill¹ when Hitler tore up the Molotov-Ribbentrop pact, condemned the German nation to war on two fronts and presented the British nation with a great Continental ally. It is true that the Russian alliance brought no economic relief to Britain; as will be shown later, it brought new economic strain. But the strategical relief it brought was immediate and great.

The strategical burden of the previous twelve months had not fallen upon British shoulders only. When the wireless propaganda of Dr. Goebbels accused the British people of pushing Australians and New Zealanders, Indians and South Africans into the most dangerous fighting, it advertised a truth of great moment for the world's freedom; in this year of decision, Britain was not an isolated island, but the rallying-centre of Commonwealth and Empire. The reinforcement of her national power was both military and economic. While Canadian soldiers shared with their English, Scottish and Welsh comrades the defence of the United Kingdom, Canadian farms, factories and shipyards were working for victory without any reservations about cash and carry. While forces from India and the southern Dominions were fighting in the Middle East alongside United Kingdom forces to veto the junction of European and Asiatic

¹ In his broadcast speech of 22nd June 1941.

aggressors, an 'Eastern Supply Group', of which Australia, India and South Africa were the chief members, was taking from British shoulders part of the weight of military supply in this area. It could not, however, take the main weight. The United Kingdom had to supply more than three-quarters of the Empire's military manpower and an even larger proportion of the military equipment.¹

From the time of Dunkirk, the British Government had made insistent claims upon the United States: self-help without stint or limit did not exclude, but rather encouraged the expectation of American help. As early as 15th May 1940, the Prime Minister had telegraphed to the President:

If necessary we shall continue the war alone, and we are not afraid of that. But I trust you will realise, Mr. President, that the voice and force of the United States may count for nothing if they are withheld too long.

Throughout May and June, both before the German-French armistice and after it, Mr. Churchill sent to the President many personal telegrams containing specific requests for aid.² The same requests were made through the usual channels in official communications from Government to Government; for example, they were systematically enumerated in the aide-mémoire presented by Lord Lothian to the State Department on 3rd July. The aid requested was of two kinds: immediate aid, weapons that the Americans could deliver at once, action that they could take at once: long-term aid, the tasks that American industry would have to set itself if it were to provide, at some future date, the tools 'to finish the job'.

The demands for immediate aid, and the American response to them, cannot be discussed without some reference to the evolution of America's neutrality policy. Needless to say, no British historian is competent as yet to handle this topic with authority; all that the present writers will offer is a minimum of relevant comment suggested by the British documents, which reveal, not the full content of American policy, but those contemporary British interpretations of it that influenced British action. It is simple enough to write down the things the British demanded: the lists are clear. On 15th May, Mr. Churchill asked the President for 'forty or fifty of your old destroyers'. That was always the most urgent demand.³ On 17th July Mr. Churchill told the President: 'Nothing that America could do would be of greater help than to send fifty destroyers—except sending a hundred.' But destroyers were not by any means the only reinforcements

¹ See the index given on p. 373 below.

² All important communications from the Prime Minister to the President were, of course, approved in advance by the War Cabinet.

³ On 7th April 1940 the Royal Navy had 189 destroyers: of this number thirteen were sunk and thirty-three damaged in the fighting off the coasts of Norway and Dunkirk—to say nothing of the loss of the French destroyers, synchronising with Italian belligerency and the advance of German air and naval bases.

the British needed for their struggle at sea: they asked the Americans to give them motor torpedo boats for Channel fighting and seaplanes for Atlantic patrol: they wanted the United States Navy to make a show of power by sending units to the Mediterranean and to Iceland: they asked the United States Government to consider whether it was ready to take steps leading to the abolition of the 'combat zones'—for it was a reinforcement of their carrying capacity in dangerous waters that they needed, not only of their fighting strength. They needed at the same time immediate help for the battles they might very soon have to fight on their own soil against invading German armies. They asked for American aircraft for the R.A.F. and American rifles, machine guns, field guns and mortars to replace some of the equipment that the B.E.F. had lost in France and to arm the Home Guard.

The American response was governed by psychological and political conditions which the British Ambassador in Washington explained, so far as he was able, to his home Government. Lord Lothian reported that the time was now past when Government and public opinion in the United States, despite their democratic sympathies, would make more fuss about the contraband control or the searching of mail in the West Indies or the reduced British purchases of apples and tobacco than about the illegalities and aggressions of Nazi Germany.¹ Admittedly, there were some Americans who still made gestures of neutral impartiality which were in effect pro-Axis: as late as November 1940, a prominent American opened a campaign for sending food ships to those 'five European democracies' which, he said—with an impartiality truly impeccable—were being starved by 'the British and German blockades'.² By this time, however, it was only a small fringe of Americans who thought of British seapower as anti-democratic; the immense majority of Americans saw in the Royal Navy a champion of 'democracy'—including the democracy of America. President Roosevelt expressed these feelings when he declared at Charlottesville on 12th June 1940:

We will extend to the opponents of force the material resources of this nation, and, at the same time, we will harness and speed up the use of those resources in order that we ourselves in the Americas may have equipment equal to the task of any emergency and every defence.

But how to balance these two objectives—immediate aid to British democracy which was already an 'opponent of force', and the equipment of American democracy which might oppose the same force later on? Lord Lothian reported the Americans to be divided in their

¹ The friction arising between the United States and the British and French Governments, chiefly as a result of blockade measures, had led to the sending of a special Anglo-French mission to Washington (the Rist Ashton-Gwatkin mission) early in 1940. The mission arrived in February and stayed till May: a general understanding was announced by an American communiqué dated 26th April 1940.

² Speech at Vassar, 14th November 1940, by Mr. Herbert Hoover.

own minds: they were convinced by the events of May and June that Britain was the only barrier between themselves and immediate danger, but they had no confidence in the tenacity of the barrier. They wanted to give help, but they feared that any help they might give would be too little and too late. They found it hard to decide whether to strengthen the British in the front line or to despair of the British and concentrate on defending their own hemisphere—or quarter-sphere: even that phrase was coined. Under these circumstances, British self-help was the most effective way of inducing American help. By the autumn, Lord Lothian was able to report that the Battle of Britain and London's toughness had inspired a renewal of American confidence in British nerve and strength. The policy of 'defending America by helping Britain' was now 'really representative of average American opinion, and for the first time the British became popular in America'.

Against the background sketched by Lord Lothian, the British Government could more easily assess the significance of America's response to its requests for immediate aid. Some of the requests, particularly those which called for American support in the struggle at sea, were turned down or put off. The President felt unable to send naval units to the Mediterranean or Iceland, or to ask Congress for the removal of the ban on the entry of American merchant ships into dangerous waters. Nor did he at first feel able to satisfy the most urgent of all the British demands, the demand for the old destroyers: throughout the critical months of May, June and the greater part of July the United States Administration felt that transfer could not take place without Congressional action, for which neither Congress nor American public opinion was yet ready. However, transfer became practical politics towards the end of July, when it was linked with the leasing to the United States of naval and air facilities in British possessions in the western hemisphere. The deal was completed on 2nd September.

American help had been given much more promptly to strengthen the land defences of Britain. More than half a million rifles, 85,000 machine guns, 25,000 automatic rifles, some hundreds of 'seventy-fives' and mortars, 21,000 revolvers, with supplies of ammunition for all these weapons, were released from surplus American stocks at the very time when the British wanted them most urgently. The British paid for this equipment and it was carried in British and Allied ships;¹

¹ It had been thought at first that the transfer of surplus military stores could not be made without special legislation of Congress, but on 6th June 1940 the U.S. Attorney General declared legal under existing law a complicated procedure whereby the Administration could turn over to American manufacturers old equipment in payment for new equipment to be produced: the manufacturers were thereafter free under international law and American laws (with the cash and carry proviso) to dispose of the equipment to belligerent governments.

but these consequences of the neutrality legislation did not remove the great moral effect of America's action. Soldiers of the Home Guard who cleaned from the rifles the grease in which they had been packed more than twenty years before did not ask how they had been paid for or how they had been transported to Britain. They were *American rifles*—not quite so familiar and handy as Lee-Enfields; but they shot straight.

Indeed, while some learned Americans were worrying about the significance of these transactions in terms of international law,¹ ordinary people on both sides of the Atlantic knew very well where they were tending. To quote an American phrase then current, they signified the rapidly emerging policy: 'All aid short of war.' Before the end of 1940 the new policy was expressing itself in a succession of activities hard to reconcile with old-fashioned neutrality—the flying of aircraft direct to Canada, the provision of training facilities in Florida for R.A.F. pilots, the repair of British warships in American ports. The same policy in 1941 would carry America even closer to the zones of combat: American merchant ships would enter the Red Sea, American warships and land forces would take over from Britain the defence of Iceland.

The American response to British requirements of a long-term character was governed by the same evolution of policy, which in retrospect is seen to be of decisive importance, though to the British people it seemed at the time hesitant and slow. The hesitancy was not all on one side. Then, as later, there existed real and inevitable discrepancies of opinion between 'user' and 'producer' interests, between the men—both British and American—who were thinking of the battles that would be fought in the next months or weeks, and those who were planning programmes of production for victory in years still distant. Between these two categories of opinion there was not, of course, any hard and fast line of division; Service chiefs planned for the years ahead and production experts struggled against the shortages and frustrations of this week and next. Nevertheless, the former did tend in the main to fight for immediate allocations of American material—in the summer of 1940 from old stocks, but from new production thereafter—whereas the latter were more likely to impress upon the Americans the need to raise their sights high and undertake the capital development necessary for large output later on. Yet even this cautious classification is over-simplified: for the production planners were themselves faced with difficult decisions between the present and the future, particularly between the claims of British war industry—which was already very much a going concern but dependent upon American materials and components and

¹ cf. *American Journal of International Law*, Vol. XXXIV, pp. 502-3, 587, 697: opinions by various American professors.

tools if it were to achieve maximum production—and American war industry, which needed the same instruments of production if it were to develop, almost from nothing, its great potentialities. Here were problems which could divide opinion on lines cutting right across the national loyalties. National loyalties and narrow domestic policies did, however, count. In the summer and autumn of 1940 an American Service department, arguing that the building of the national defences must come first, might find itself supported by defeatists who said there was no sense in sending machine tools to be bombed or captured in Britain, and by isolationists who believed that America should do nothing to offend Hitler.

Issues so crucial and so intricately tangled called for skilful and firm handling on the British side. At every point the British had much to lose: at every point their losses might be severe if they failed to strike a just balance between their competing claims, if they failed to argue their case as a whole. This had always been the doctrine of Purvis—and of Monnet, who in July 1940 went to America to take service under Purvis.¹ During the nine months between the fall of France and the advent of lend-lease, the doctrine embodied itself with reasonable success in organisation and policy. The immediate responsibility of Purvis was to the Ministry of Supply, the parent body of the British Purchasing Commission. As chairman of the B.P.C., he had by mid-summer asserted effective control over the whole range of Ministry of Supply activity in America. He then had to face tasks of re-staffing and re-organisation within the B.P.C.; for the tightening of government control over American war industry had out-moded British commercial procurement in the open market.² Technicians were now needed, rather than commercial men. The reshaping of the B.P.C. was not achieved quickly; Purvis had other things to do; perhaps he did other things better. With an insufficiency of explicit power, he had to establish co-ordination of policy and action among no less than nine British missions, representing almost as many Whitehall departments.³ Most of the missions, it is true, were small and easily managed; but one of them—the British Air Commission—was powerful and extremely jealous of its independence. Up to December 1940, Purvis was able to achieve practical co-ordination by personal firmness and tact and the leverage of the confidence accorded to him by Secretary of the Treasury Morgenthau;⁴ from December onwards he was given explicit status

¹ See above, p. 196.

² The U.S. National Defense Advisory Committee (N.D.A.C.) which had taken the place of the 'synchronisation committee' mentioned on p. 196 above, had power to veto all production contracts of more than \$150,000.

³ According to a list drawn up in the War Cabinet Offices in September 1940.

⁴ By devolution of power from the President, Mr. Morgenthau exercised the chief authority in the N.D.A.C.

and influence through his chairmanship of the British Supply Council in North America. This new Council did not supersede the arrangements whereby the individual missions in Washington fulfilled the instructions of their parent ministries in London; its purpose was rather to ensure that individual action took place within the agreed framework of British policy in Washington. It was a federalistic organisation representing all the missions and charged with authority 'in all issues of policy concerning supply including all representations made to the United States Administration'.

The organisation might change, but the basic issues remained the same. At every stage, a balance had to be struck between short-term and long-term needs. In the summer of 1940 a fair measure of prompt success had been won under the first head; but the issues under the second head were more tangled and longer in doubt. It was a cardinal feature of the Purvis-Monnet programme to get the Americans to raise their sights all round: a great flood of output was the only guarantee that all the parched channels would be irrigated. Unfortunately, the Americans in 1940 were still too easily impressed by an industrial expansion which was, no doubt, a promising beginning; but, even so, was absorbing not much more than ten per cent. of their national income.¹ The persistent deficiency of supply made the American Service departments reluctant to release to the British, munitions and productive resources that they wanted for their own expanding forces. The same deficiency made some British departments reluctant to pitch their claims too high: if they placed too many new contracts in America, would not the Americans withhold from them the machine tools necessary for maximising their own maturing programmes at home? Such misgivings, it is true, had not deterred Lord Beaverbrook from telling the Americans in July that he would—on top of existing contracts—take all the aircraft they could produce up to 3,000 a month; but even he had to swallow the consequences of his forthrightness: he found himself compelled to compromise on machine tools whose delivery had been already stipulated under the Anglo-French contracts. The other departments were not so ready as Lord Beaverbrook to 'talk big'. In the very middle of the naval crisis, the Admiralty's requirements upon American production were scaled up by little more than £13 millions on a pre-existing £10 millions. Not until the late autumn of 1940 did the Admiralty place the first Todd-Kaiser contract for sixty merchant ships—a contract that initiated the phenomenal expansion of the Kaiser ship-building enterprise. The Ministry of Supply had acted with similar deliberateness—if that is the right word. In the sphere of army supply, those obstacles to boldness that have already been

¹ According to a rough estimate reported by Sir W. Layton when he was on a special mission in the United States during September-December 1940.

enumerated were reinforced by a special difficulty. The American Service departments did not favour the locking up of industrial resources in the production of weapons of a type that their own forces would never use: the British departments were not quick nor wily enough to persuade the Americans to adopt British types. Perhaps they never had any real chance of doing so. The 'battle of the types' made some stir in the summer and autumn of 1940; but its result was in all probability a foregone conclusion: the chief consequence of fighting it was delay. Up to the end of October, the Ministry of Supply's demand upon America was a small affair of making good deficiencies in the existing British programme, with some additional insurance against losses of production through German bombing. Then there was a change. Towards the end of October, the Americans offered to fulfil the modest requirements that had been already stated for British-type equipment and on top of that to provide with all possible speed American-type equipment for ten British divisions. The Prime Minister cabled—'This is splendid. You should at once accept offer.'

It would be out of place in the present book to go further into these problems; enough has been said to show that Purvis and Monnet and their fellow-workers in London and Washington had great difficulty in persuading, not only the United States Administration, but also some of the British departments—from whom the most intense forward impulse was to be expected—to take the action that would initiate a really serious mobilisation of America's war potential. Nevertheless, there was by the end of 1940 a fair degree of progress to record. In the first place, Britain's demonstration of her determination and capacity to hold the front line had given sufficient answer to those Americans who argued that investment in British war-making capacity would give no return in terms of American security. In the second place, the ten-division scheme offered the model of arrangements which, even from a strict American Service point of view, would give very positive returns. The United States War Department, for example, was looking ahead; it was rearming, while the country still remained committed not to send armed forces overseas; it wanted to build up productive capacity in case this policy should be changed; it wanted to produce equipment in advance of recruitment. To produce American-type equipment which the British would pay for now was an excellent method of expanding capacity to equip an enlarged American Army in the more distant future. While British soldiers, sailors and airmen were sheltering the still-surviving American peace, British orders were building the strength that America's fighting services might someday be compelled to exert. But supposing the British ran short of the dollars to pay for the orders? What then?

By the end of 1940, the British had committed nearly all their available dollars. By reason of their own circumspection or the delays and obstacles that had beset them in America, the curve of their demands had been slow in rising; but by now it had reached a respectable height. The Kaiser ship-building enterprise had been launched by Admiralty orders; Lord Beaverbrook's expansive visions were embodying themselves in specific aircraft contracts; the War Office had superimposed Programme B (the ten-division scheme) upon Programme A (the deficiency and insurance scheme). All this, to be sure, seemed far too little to planners of the Purvis-Monnet school. At this very time Purvis was going into action with a well-tried weapon from Monnet's armoury. With the intention of shocking the Americans into a new estimate of the efforts demanded of them, he produced a 'balance sheet'. It was in three columns; first, the estimate of British requirements: secondly, the estimate of British production: thirdly, the deficiency. It was only American production that could make good the deficiency.¹

There was not the slightest hope that Britain could raise the dollars to finance that production. By the end of 1940, British commitments in the United States for initial orders and capital development without counting Programme B amounted to nearly \$10,000 millions. This figure represented only a fraction of America's war potential, but it was much larger than the debt that Britain had incurred in 1914-18, and far in excess of total British assets in the United States. The United States Treasury was informed about this. The warnings of impending dollar exhaustion that the Prime Minister had given the President as far back as mid-May were justified by precise figures produced during July by a senior Treasury official who had gone to America on Mr. Morgenthau's invitation. Thereby the Americans were confronted with a dilemma: either to withdraw support from Britain and consequently to impose upon themselves immediate and immense strategical dangers and war expenditures far greater than any they had yet contemplated: or else to continue and expand their aid to Britain irrespective of 'the dollar sign'. The United States Government never doubted what its ultimate decision would be; but it was intensely anxious to postpone the day of decision. The representative of the British Treasury telegraphed to London, 'Nothing before the election'. Until then, the United States Treasury encouraged the British to press ahead with war contracts they could never fully pay for, while all the time it put

¹ On the origins of the balance sheet technique see p. 193 above; on its later development see p. 384 below. It was believed contemporaneously in British official circles that the Purvis balance sheet powerfully influenced the first appropriation under the Lend-Lease Act. True the appropriation was for \$7 billion as against the \$15 billion deficiency shown by the balance sheet; but it was thought, then and later, that had it not been for the balance sheet the appropriation would have been much less.

persistent pressure upon them to 'scrape the bottom of the barrel' so that they might meet the interim payments as they fell due. Some Americans tried to persuade themselves that there was more in the barrel than the British pretended; as late as 28th November 1940, Lord Lothian reported them to be 'saturated with illusions that we have vast resources available that we have not yet disclosed and that we ought to empty this vast hypothetical barrel before we ask for assistance'. The United States Administration was fertile of suggestions to the British for stripping themselves bare. They might raise some more cash by disposing of their 'direct investments' in America—the British-controlled enterprises, such as Viscose Corporation, for which there was no established market. They might sell their South American securities and their interests in Malayan tin and rubber. They might cash in at once on the stocks of whisky intended for export to America during the next ten years. They might cash in at once on their stocks of Australian and South African wool. They might dispose of the Empire's gold stocks in anticipation of future mining production.

Some of these things the British did. They sold British ownership of the Viscose Corporation—not perhaps at a 'rubbish price', as was often said at the time, but certainly at a heavy sacrifice. This was partly because the time at which sale took place was unfavourable, but still more because the real value of Viscose fell as soon as it was separated from the parent British firm, Courtauld's Ltd. Would they not incur even greater losses by selling at knock-down prices their South American or Malayan investments? Mr. J. M. Keynes, in a pointed memorandum, discussed the economic issues. The Malayan investments, he said, represented living personal enterprises, not an automatic flow of dividends: if the Americans took over the dividends they would have to take over the enterprises, together with responsibility for the territories in which the enterprises were situated: otherwise the flow of production would dry up. And what about gold? Actually, the British were doing everything in their power to mobilise all available gold: on 5th January 1941 the United States cruiser *Louisville* put in at Simonstown and took off gold to the value of \$149,633,653: on the very eve of the Lend-Lease Act, the Belgians came to the rescue of their ally by giving them an option on \$300 millions worth of gold in Belgian possession. It was only by expedients of this kind, and by slowing down their contracts, that the British squeezed through the winter months without defaulting on payments that fell due. But were such improvisations sound in economics? Mr. J. M. Keynes argued that it was nobody's interest, most certainly not America's, that Britain should completely denude herself of gold. If the convention by which gold was used as a means of settling international balances came to an end, America's own stocks

would become valueless. 'The convention depends', Keynes wrote, 'on not all the gold being in one hand. When in the game of "beggar my neighbour" all the cards belong to one player, that is the signal for the game to come to an end. The pack becomes worthless pasteboard: the fun is over.'

The economists who were attached to the United States Treasury no doubt saw these truths as clearly as Keynes did; but the Treasury according to British reports, insisted upon 'the psychological importance of the question' and argued that Britain must manifestly strip herself bare in order to strengthen the President's hand when he came before Congress with new proposals of financial aid. Mr. Churchill concluded that the time had come for him to approach the President again with a statement ranging wider than political economics. He reminded the President that the British Commonwealth, in defending itself, was buying time for the United States to prepare their own defences: the future of both democracies depended on successful British resistance during the coming year. The decision in the coming year would lie on the seas; Britain, having survived direct enemy assault in 1940, might be overwhelmed in 1941 by the less spectacular but no less deadly attack upon her shipping. Should she fall under this attack, the United States might not find time to complete their own preparations. The Prime Minister reiterated the urgent need for American help at sea—strategic help, through the transfer of American warships or the reassertion of the American policy of freedom of the seas, and industrial help, in the form of a ship-building drive comparable with the Hog Island programme of the last war. Industrial help was hardly less indispensable in the sphere of air and army production. This brought Mr. Churchill to the question of finance.

The moment approaches [he said] when we shall no longer be able to pay cash for shipping and other supplies. While we will do our utmost, and shrink from no proper sacrifice to make payments across the Exchange, I believe you will agree that it would be wrong in principle and mutually disadvantageous in effect, if at the height of this struggle, Great Britain were to be divested of all saleable assets, so that after the victory was won with our blood, civilisation saved, and the time gained for the United States to be fully armed against all eventualities, we should stand stripped to the bone. Such a course would not be in the moral or the economic interests of either of our countries.

Finally, the Prime Minister affirmed Britain's readiness to suffer for the common cause, and her pride in being its champion. He asked the President to look upon his letter, 'not as an appeal for aid, but as a statement of the minimum action necessary to achieve our common purpose'. He declared himself convinced that America would find

ways and means of action which future generations on both sides of the Atlantic would approve and admire.

Indeed, the time for action had come. On 5th November Mr. Roosevelt had been re-elected President of the United States for a third term. On 23rd November Lord Lothian, without specific authorisation from the Chancellor of the Exchequer, told the American public the truth about the impending exhaustion of the British store of dollars. Lord Lothian died suddenly on 12th December. On 17th December President Roosevelt made the great speech that put the idea of lend-lease into American minds. On 10th January the bill embodying the new idea came before Congress. Its number—H.R. 1776—recalled the year of American independence; its title proclaimed it to be an 'Act to promote the defense of the United States'. It became the law of the United States on 11th March 1941.

Meanwhile, the Canadian Government maintained and where necessary expanded the policy which from the beginning of the war until the end enabled the United Kingdom to procure from Canada the munitions, materials and food it needed, without at any time suffering embarrassment from shortage of Canadian dollars.¹

(ii)

First Fruits of Lend-Lease

It is the historian's task to study reality within a framework of time. The framework of the present study is March-December 1941. What reinforcement of their war-making power did the British derive from lend-lease during these nine months? The passing of the Act did not transform Britain into an island well furnished for war; America aspired to be the arsenal of democracy, but the aspiration was still far from achievement.

The services rendered under lend-lease are measurable, first of all, in dollars. Fortunately for the historian, the Act did not altogether 'remove the dollar sign'. Although the recipients of aid stated their requirements in quantities and categories of 'defence articles', the givers of it kept strict account—as by their own constitutional practice they were bound to do²—in money. The appropriations of

¹ For a short summary of Canadian financial aid to the United Kingdom throughout the war see p. 375 below.

² Congress could not appropriate vehicles or steel or spam by quantity and volume: it could only appropriate dollars to cover the cost of these things. British requirements were thus given a dollar expression for U.S. budgetary purposes; thereafter, the Records and Statistics Division of the British Supply Council obtained the figures from the U.S. Administration.

money authorised by Congress for all lend-lease purposes before Pearl Harbour amounted approximately to \$14,000 million;¹ but the defence aid rendered to Britain and the British Empire during the same period was only about one-fifteenth of this total. For this gap between the money appropriated and the aid rendered there was more than one cause. To begin with, the British, although the chief beneficiaries of the new American policy, were not the only beneficiaries: China, Soviet Russia,² and the smaller Allies received their shares. More important still were the peculiarities—at that time not generally appreciated in Britain—of United States financial procedure. Whereas a 'vote' of money by the British Parliament represents the estimated expenditure upon a specific object within a single financial year, an 'appropriation' by Congress is not nearly so confined: quite frequently, it represents the whole estimated cost of a task that may take two or three years to complete. The appropriations of Congress for lend-lease purposes were no more than the first link in a long chain of action—statement of requirements by an American procurement authority, allocation of funds, issue of contracts, expenditure under the contracts, progress of work, delivery of the goods, their eventual transfer to the recipient of defence aid. There need be no surprise that the flow of lend-lease aid, which in later years became so mighty a flood, was during the first nine months a comparatively modest trickle. The actual dollar value of the aid rendered to the whole British Empire during those first nine months has been reckoned at \$1,082 million—a bare thirtieth of the total achieved between March 1941 and August 1945.³

Up to Pearl Harbour, the British were still paying dollars for the greater part of the supplies they were getting from America. A striking chart was printed in the President's third lend-lease report to Congress; it should not perhaps be scrutinised too narrowly, but it drives the main lesson home.

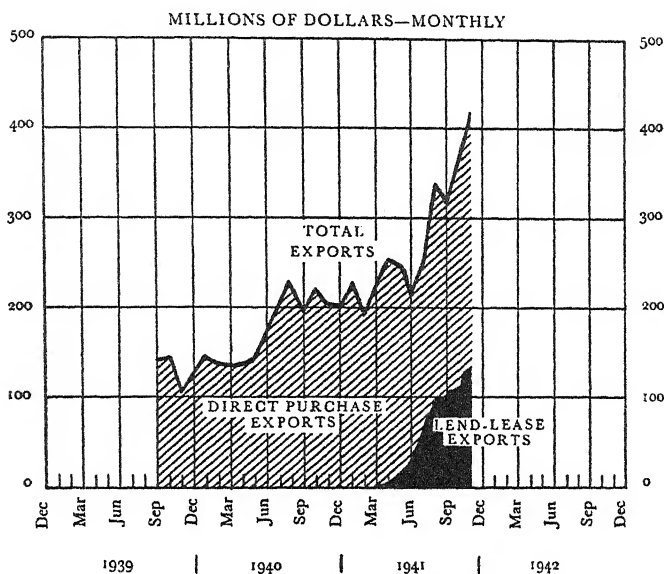
¹ The record of appropriations was as follows:

First Lend-Lease Appropriation Act (March 1941)	\$7,000,000,000
Second " " " " (October 1941)	\$5,985,000,000
First Supplemental—Maritime Commission (August 1941)	\$1,296,650,000
TOTAL	\$14,281,650,000

The original Act set a limit of \$1,300 million to transfers from past appropriations. This was not much used and in the Third Supplemental early in 1942 the transfer limit was reduced to \$800 million.

² After October 1941.

³ See column one of Table 3 (b) in the statistical summary at the beginning of this Part. The table has been compiled by Prof. R. G. D. Allen. It does not attempt to separate the aid to Dominions and Colonies from that to the United Kingdom: Prof. Allen calculates that for the whole period of the war the three southern Dominions received approximately seven per cent of the total. The comparatively small sums on account of the European Allies are also included in the British figure. See 'Mutual Aid Between the United States and the British Empire, 1941-45', in *Journal of the Royal Statistical Society*, Vol. CIX. Part III 1946.

EXPORTS TO BRITISH EMPIRE
AND EGYPT

The chart, it will be observed, shows the value of exports to all British Empire countries and Egypt, not merely to the United Kingdom. It shows how lend-lease, after a slow start, began to gather pace during the months following the German attack on Russia. The acceleration climbed steeply after Pearl Harbour; if the lines of the chart were projected through 1942 and the following years, they would show a rapid increase of the black area and a decrease of the shaded area until at last black would dominate the whole picture. But we must at present confine ourselves within our immediate framework of time—that period when the British Empire fought the Axis powers while the American Republic was still neutral.

The chart helps to explain a phenomenon that American public opinion, as reported by the British ambassador, found 'paradoxical and exasperating'—Britain's continuing embarrassment about her dollar position, even after Congress had approved lend-lease. In March and April the British still found themselves compelled to sell gold in New York, including some emergency shipments from South Africa. They owed the Belgians \$300 millions worth. Their short-term liabilities to the Canadians (who never once had refused or even questioned British requests for financial support) were piled up to a high level. The payments they had to meet under the American contracts of 1940 were rapidly mounting. They also found it hard to keep free of new American commitments; for the lend-lease

machinery was at the beginning ponderous and slow¹ while many British requirements were urgent: there was a 'hard core' of supplies that had still to be paid for if they were to be secured at all. Meanwhile, the British had to pay in hard currency for essential supplies derived from other countries. For all these reasons, they needed 'some money of their own in their pockets'. Thinking that the best way of getting it would be to persuade the Americans to take over financial liability for the existing contracts, they sent Mr. J. M. Keynes to Washington to negotiate the transaction. Unfortunately, the United States Administration had engaged itself to the Appropriations Committee of the House of Representatives not to help the British in this way. So the Administration looked round for another way. While the British whittled the 'hard core' of their dollar purchases, the Americans rapidly expanded lend-lease. They stretched it to cover, not merely the so-called 'non-military' commodities produced in the United States, but certain commodities produced beyond United States boundaries—for example, Cuban sugar. They took over some Swedish ships and handed them to Britain on lend-lease terms. Most important of all, they extended lend-lease aid to the Dominions and Colonies. These expansions of lend-lease 'eligibility' occurred for the most part between March and July 1941. They very greatly relieved Britain's difficulties of external payment. Later in the war, after the British store of dollars had been increased (chiefly through the money spent, outside the range of reciprocal aid, by American soldiers and airmen in Britain and the Empire) 'eligibility' was again narrowed.

However, it is time to return to the object of immediate inquiry. It has been shown that lend-lease aid during the period under review was marginal, even within the restricted sphere of American procurement; but marginal influences, it is worth remembering, can be economically decisive. Some attempt must be made to break up the billion dollar figure and translate it into physical substances. A detailed translation is, of course, quite out of the question: it would have to reckon, item by item, with the different levels of British and American costs² and probably would become too deeply bogged in accountancy. For the present purposes it will be much more sensible to

¹ At the beginning, Mr. Harry Hopkins had been made responsible under the President for administering lend-lease; then, in May 1941, a Division of Defense Aid Reports, administered by Major-General Burns, was set up under the general oversight of Mr. Hopkins; in October 1941, the Office of Lend-Lease Administration (OLLA) was established under the charge of Mr. E. Stettinius. It would be out of place here to discuss the relations between OLLA and the departments that carried the responsibility for procurement.

² All lend-lease values were, of course, reckoned in American costs: by British reckonings of their own costs, a tank or aircraft manufactured in the United States was at this time more than twice as dear as the corresponding United Kingdom article. For food and many raw materials the ratio would be very different, and sometimes no comparison at all would be possible.

look broadly at the main categories of lend-lease aid and to say something in quite general terms about their proportionate importance.

To begin with aircraft: over the whole period of lend-lease (March 1941 to August 1945) they amounted to twenty-one per cent. of the \$28,000 million or so that was the total aid to the British Empire after excluding petroleum; but in 1941 they amounted to no more than two per cent. of the \$1,000 million total. Or consider vehicles: over the whole period their proportionate importance was 13.5 per cent.; but in 1941 it was only 6.7 per cent., of which only a small fraction represented armoured fighting vehicles. The reasons for these contrasts are two-fold: in the first place, American industry was not yet tooled up for war production (it was for example not yet producing tanks in quantity) and in the second place its limited output was still largely the product of British cash orders. Mr. Stettinius has given some interesting examples in his book, *Lend-Lease, Weapon for Victory*. He estimates that 2,400 aircraft were exported to Britain and to British forces in Egypt from March to December 1941; but of this total less than 100 went under lend-lease; 'the rest were planes the British bought for cash'. He estimates the totals of trucks and tanks exported as 13,000 and 951 respectively: of the latter, 165, and of the former, approximately 8,000 were paid for by the British. In 1941 the Americans had few finished munitions to spare for Britain and most of those the British did receive came from their own cash contracts. Lend-lease funds appropriated for munitions in 1941 were used in considerable part to place 'follow up' orders on British cash contracts which then occupied so much of the available United States munitions capacity. Lend-lease would help their forces to win the battles of future years; the help it gave in the battles of 1941 was trivial.

Of industrial materials there is a different story to tell. The advent of lend-lease safeguarded the policy the British had adopted after Dunkirk, of switching and re-arranging their import requirements without any thought of the expenditure of dollars. They had lost the Narvik iron-ore: what they most needed to take its place was not American ore but American finished steel, which would save them shipping space and labour and thereby maximise their own productive efforts. America was able to supply the steel. She was able to supply many other materials. From time to time, it was true, there were some British requirements—for aluminium, brass strip, drop forgings, chlorine and some other chemicals—that could not be satisfied immediately or in full; but generally speaking the Americans were able to meet both their own expanding requirements and the British ones, and in addition, to build up some stocks which proved very useful later on. Most important of all was the freedom gained by British industry to plan ahead and drive hard for immediate output without being held up by present raw material shortages or the fear of future ones.

Lend-lease deliveries of food during this period were the largest single category; they were valued at \$290 millions and represented nearly a third of the total of lend-lease aid. In volume, they amounted to approximately one million tons—about one-fifteenth of the total arrivals of food in Britain for 1941. Their qualitative value was very high. In the first quarter of 1941, British food consumption had fallen to a low level. Not much harm was done at the time because the level had been high during 1940; but, with many years of war still ahead, a great deal of harm would have been done had not American help redressed the balance. An advisory committee of nutritional experts was at this very time drawing up plans for a 'basal diet' which was supposedly adequate for a besieged country; when lend-lease came, the scientific adviser of the Ministry of Food was able to make recommendations for something less dispiriting. In April, a small but extremely efficient Food Mission went to America to translate these recommendations into a programme concerted with the United States Department of Agriculture. One of the reasons why food was delivered so quickly under lend-lease was that the United States Department of Agriculture planned and actually bought for the United Kingdom before the lend-lease appropriation was passed. The American foodstuffs delivered in the following months were of high nutritional priority—26,000 tons of canned fish, nearly 150,000 tons of evaporated milk, nearly 100,000 tons of lard, 80,000 tons each of dried beans and bacon, 50,000 tons of canned meat, 40,000 tons of cheese. Meanwhile, American farmers were bending their backs to the task of growing maize for conversion into bacon and canned pork, and to the other tasks which the needs of Britain—competing, now, with the needs of Russia—would challenge them to fulfil during 1942.

At this point it will be desirable to consider in a more general way the effects produced by lend-lease in the import zone of British war economy. During the first nine months of war the British, so far as they were able, had kept their ships away from United States harbours in order to eke out their dollars. After Dunkirk they had reversed this policy in the faith that the United States would find some way of helping them when their dollars were all spent. Lend-lease justified their faith. It freed them—apart from those transitional difficulties that have been already discussed—from their chief anxieties about 'cash' and enabled them to concentrate their main energies upon the formidable problems of 'carry'.

Once the near-by European supplies had been lost, the advantages of turning to North America as the chief supplier became indisputable: not only was the North Atlantic route shorter than any of its New World alternatives, but it was the route where the main sea battles would have to be fought. By using it to the maximum, the

British might hope to get fullest value both from their merchant shipping and their naval escorts. All this is so obvious that an immense switch-over of British shipping to the North Atlantic has usually been taken for granted. What actually happened was not nearly so sensational. During the first nine months of the war, the United Kingdom had drawn thirty-six per cent. of its imports from North America. After Dunkirk, the figure increased steeply: in the last four months of 1940 it was fifty-one per cent. Lend-lease did not make much immediate difference; for the whole of 1941 the figure was fifty-four per cent. Why was it no higher? Partly because of the way in which available supplies were distributed around the world: there were limits, both in time and degree, to the refashioning of the division of labour that could be achieved among the world's producers, no matter how urgent the need might be to concentrate British shipping. Moreover, the need to concentrate shipping was itself qualified by the other inescapable tasks imposed upon the British merchant navy. It had to bring supplies to the forces fighting in the Middle East. It had to transport enough civilian goods to ensure a minimum of tranquillity among the civilian populations of that area. It had to sustain the war effort of the Dominions and Colonies. A British ship might therefore sail from Liverpool to Suez with munitions of war, from Suez to India in ballast, from India to the West Indies with rice to feed the plantation workers and with bags for the packing of their sugar, and then home to Liverpool with a full cargo of sugar. Another British ship might make the same voyage as far as Suez and India but from there proceed to the Plate with corn sacks or to Australia with wool packs, and then home again with grain or wool or general cargo. These seemingly unhurried round-the-world voyages were essential war work, though to some American ship-owners they seemed an unworthy dallying in safe waters.

Between the fall of France and Pearl Harbour sinkings of British ships amounted to a third or more of the total tonnage available to Britain in the summer of 1940.¹ This was worse than 1917, when German submarines had come close to winning the war. There is no need to demonstrate further the British need for American shipping help. Exact calculation of the help rendered is not, however, a simple matter; even a rough calculation cannot be attempted except in the context of the shipping situation as a whole. This is the subject of the following chapter.

Here it will be sufficient to emphasise one central truth. What really counted in 1941 was the assurance of a great output of American ships in the future. Without this assurance, Britain's determination to go on fighting would have been no more than a defiant gesture.

¹ See below, p. 250.

Because of that assurance, Britain was able to bear the immediate burden, chiefly by her own courage and strength. For, with the best will in the world, the Americans were unable to give much immediate aid. Their own demands upon ocean-going shipping, which in peacetime were met in large measure by foreign carriers, were rapidly increasing as they pressed ahead with their war-preparedness programme. Their own shipbuilding industry, despite the establishment of the Maritime Commission in 1936, had not as yet recovered from the derelict condition into which it had fallen after the First World War; in 1939 American yards produced only twenty-eight ocean-going ships, in 1940 they produced only fifty-three.¹ In December 1940 the British Admiralty, by letting the Todd-Kaiser contracts, had initiated an expansion of great significance for the future; but to the immediate struggle this expansion contributed little or nothing. It was not until September 1941 that the first Liberty ship was launched. Between lend-lease and Pearl Harbour the Americans gave what help they could; the next chapter will so far as possible define its proportionate value. But by far the most valuable outcome of Sir Arthur Salter's negotiations in Washington² was the assurance of an immense flow of tonnage later on.

In shipping, as in all the other matters that have been discussed, a comparatively small instalment of immediate aid, with the promise of very substantial aid to follow, enabled the British Government and people to mobilise and concentrate, much more confidently and ruthlessly than would otherwise have been possible, their own war-making power. It is in this sense that lend-lease, during the first nine months of its operation, had a decisive influence upon the British war economy. It rendered possible that peculiar blend of providence and audacity which is the stamp of an effective war effort in the economic sphere.

British providence during this period is most strikingly revealed in the figures of imports and stocks. In the nine months from October 1939 to June 1940 imports had arrived at an annual rate of 45.4 million tons, a rate that was about eighty-two per cent. of the peacetime average; yet the British had heavily depleted their stocks. Imports in 1941 were most drastically cut down; their total was no more than 30.5 million tons; but the British built up their stocks of food and imported raw materials by nearly 1½ million tons.³ These figures are proof of provident housekeeping.

¹ Of 342,032 and 641,056 d.w.t. respectively.

² Sir A. Salter went to Washington in April 1941 as head of the British Merchant Shipping Mission.

³ See Table 3(f) on p. 207. Figures for food stocks are for stocks other than on farms and figures for raw materials are for those covered by the import programme. In addition to this increase, consumers' stocks of steel rose in 1941.

As for the audacity, its full demonstration will appear in the later chapters which discuss the mobilisation of manpower and the constriction of civilian industry and standards in order to free resources for the armed forces and war industry. Meanwhile, it may be illustrated by reference to British exports—a topic which is intermingled with the evolving doctrine of lend-lease and is strictly relevant to the present chapter. A prudent economist might have argued that it was not mere audacity but downright recklessness for the British, a people dependent for their bare living on abnormally large imports, to sacrifice in their ardour for victory the means whereby imports must be purchased—to let go the markets for their visible exports, while all the time their invisible exports were being consumed by realisation of their overseas capital holdings and the war losses of their mercantile marine. But what British economist in 1940 or 1941 could have been prudent in this manner—could have preoccupied himself with the future living standards of his country instead of the immediate effort demanded of it if it were to save its own independence and the world's freedom? So long as cash had to be earned for the purchase of American supplies, Britain had laboured by her 'export drive' to earn it; but so soon as the prospect of American financial aid appeared on the horizon, she sacrificed her exports in order to maximise her armed forces and their equipment. In the third quarter of 1940, the volume of British exports (including munitions) was thirty-seven points down on the base index number of 1935; by the time of lend-lease, it was approximately fifty points down.

Britain, nevertheless, had still to maintain some exports, even if the flow was greatly reduced. In America itself the direct contracts had still to be paid for. Producers in other parts of the world needed to be given some immediate incentive to support the British war economy. Those claims upon the future that were embodied in the sterling balances were not by themselves an all-sufficing stimulus to West African producers of vegetable oils or to South American producers of meat; these people had urgent present demands that had to be met. The efforts of British exporters to meet them raised, in the new context of lend-lease, some very awkward problems. It was not always easy for the British Government to ensure that materials delivered under lend-lease were not embodied in British export production; or, even if physical segregation were possible, it was difficult to prevent indirect benefit arising to British exporters through the increased availability of materials similar to those delivered under lend-lease. But American exporters found it hard to see why they should be deprived of materials, some of which were becoming scarce, for the advantage of British competitors in overseas markets.

The British Government was anxious to do everything in its power to allay American complaints. It had to pay regard not only to the

immediate issues but to their effect upon American feeling about the war. The reports from Washington suggested that there had been a considerable abatement of the short-lived British popularity that Lord Lothian had reported in the previous autumn. The Battle of Britain was now more than half a year past; 'London can take it' was stale news, the Germans were winning their spring victories in North Africa, Greece and Crete. The British had been given tools; but they did not seem to be finishing the job. And while their soldiers were losing battles, their people at home were said to be grumbling about lend-lease food; they did not like pinto beans, they would not eat fat bacon. But they seemed quite willing to use America's freely given steel¹ to justify, at American expense, the slogan they had painted over the whole South American continent—'Britain delivers the goods'.

It may well be that British officials in Washington laid too much emphasis upon what was perhaps a minor note of American public controversy at that time. Be this as it may, the reports that came from Washington gave additional stimulus to the desire of the British Government, and the United States Government also, to remove British export policy from the arena of clamorous argument. With this purpose in view, official conversations were opened in Washington and subsequently continued in London. What the Americans demanded was not simply the exclusion of lend-lease materials from British export production: complete exclusion would demand a segregation of materials which might sometimes be physically impossible. The main American objections could be more simply met by 'the principle of substitution', under which domestic consumption of any material was to be at least equal to the amount received under lend-lease. On top of this, the Americans demanded that there should be restriction in the supply to British exporters of all materials obtained from the United States which were subject to export restriction or priority rating in the United States, whether or not these materials were included in lend-lease deliveries. They also called for action by the British Government to restrict the export of manufactured goods containing materials *similar* to those obtained under lend-lease. To all these demands the British Government thought it prudent to give satisfaction; its full compliance found expression in a

¹ The following table, taken from the U.K. Trade and Navigation Accounts for 1941, demonstrates the fall in South American markets of British exports of (a) machinery and (b) iron and steel goods and manufactures thereof:

1941	Argentina		Brazil		Chile	
	(a)	(b)	(a)	(b)	(a)	(b)
1st Quarter	£304,000	£521,000	£186,000	£40,000	£113,000	£21,000
2nd Quarter	£274,000	£645,000	£103,000	£43,000	£21,000	£9,000
3rd Quarter	£293,000	£482,000	£233,000	£35,000	£28,000	£2,000
4th Quarter	£249,000	£316,000	£99,000	£3,000	£14,000	£1,000

memorandum transmitted by the Foreign Secretary to the American Ambassador on 10th September 1941 and printed as a white paper.¹ It affirmed:

1. that lend-lease supplies had not been used in export production, and would not be so used, except when complete physical segregation was impossible: the principle of substitution would then apply.
2. that in the future, as in the past, the principle of substitution would apply to *similar* materials, as well as to lend-lease materials.
3. that, as regards materials which were scarce in the United States, restrictions of increased stringency and very precise definition² would be enforced upon British exporters.

These undertakings were broadly in line with the autonomous purpose of British policy, according to which exports must fall to the bare minimum required by the war effort. Moreover, the undertakings were given as a unilateral declaration of British policy. But, since their main purpose was to appease criticism in the United States, the British felt bound to give information to OLLA (Office of Lend-Lease Administration) about the progress of the policy. OLLA was not easily satisfied; before long it set up an organisation of its own 'for policing observance of the terms of the White Paper'. Here was a clear sign that the nation which received lend-lease was finding it difficult to maintain its independent and equal status *vis-à-vis* the nation which gave it.³ The difficulty did not disappear when the United States became a partner with the United Kingdom in war.

Exports had been a dominant consideration of British economic policy in the first period of the war, and they were destined to become so once more as the end of the war came in sight. It was American lend-lease that made it possible for the British export problem to go underground in the long middle stretch of the war. And when the problem emerged again as one of impending urgency, it was entangled in some novel complications which lend-lease had created. It was not merely that the volume of exports could never have fallen so low but for the fact of lend-lease; the task of retrieving the volume

¹ Cmd. 6311 of 1941.

² The British bound themselves not to use these materials for exports except in the following strictly defined cases: supplies essential to the overseas war effort and not obtainable in the United States; small quantities of minor but essential components which otherwise were composed of materials not in short supply in the United States; repair parts for machinery of British manufacture currently in use, or material for the completion of installations still under construction.

³ The much greater latitude given by the United States to Soviet Russia (not merely or chiefly in export policy, which for Russia was far less important, but over the whole range of lend-lease policy) is a subject that some American historian might find it profitable to investigate.

and surpassing it was complicated by the doctrine of lend-lease. At the root of that doctrine were some contradictions or obscurities which had never been completely cleared up. The prime purpose of lend-lease, as proclaimed in the title of the Act and subsequently reiterated in many pronouncements of the Administration, was to 'Promote the Defense of the United States'. This purpose was strategic: in 1941 it meant keeping the war away from American shores. The United States were unconsciously adopting the role that Britain had in earlier struggles so often assumed; they were, in effect, using the instrument of subsidy to defend their national security and interests. According to this strategic logic, they were getting quite as much as they were giving and had no ground for advancing property claims against Britain: the British were fighting for American security; the Americans were providing them with means to do so; the benefit conferred on each side was reciprocal. But, side by side with this strategic logic, was logic of a different kind. Section 3(b) of the Act made provision for a quite different 'benefit' to accrue to the United States. It stipulated 'payment or repayment in kind or property, or any other direct or indirect benefit which the President deems satisfactory'. The theory underlying these words was no longer strategic, but possessory. The Act did not remove the property sign. A figure of speech much quoted in the United States at this time compared lend-lease to the loan of a fire hose to a neighbour whose house was dangerously ablaze; when the neighbour had extinguished the blaze, he would, of course, have to return the borrowed hose or offer some fair equivalent.

In the summer of 1941 the first British-American negotiations were begun for the purpose of further defining the 'benefit' or 'consideration' to accrue to the United States in return for lend-lease aid. Out of these discussions, in which Mr. J. M. Keynes was the protagonist on the British side, there emerged at length (February 1942) the 'Master Agreement . . . on the Principles Applying to Mutual Aid in the Prosecution of the War Against Aggression.'¹ This Agreement, which became the model of many others signed between the United States and its Allies, most signally merited the adjective 'unsordid'; so too did the financial terms of the settlement made in its spirit after victory had been achieved.² Nevertheless, one of its articles—and that the one on which liberal economists, both British and American, set most store—became the cause, both then and later, of much controversy and misgiving in Britain and the British Commonwealth. This was the famous Article VII, which, after providing that the final determination of the benefits due to the

¹ Cmd. 6341.

² See Chapter XIX, section (iii) below.

United States on account of lend-lease aid would not be of such a nature as to impede world trade, went on to pledge both Governments to work for the 'elimination' of discriminatory practices and the 'reduction' of tariffs.

The discriminatory practices which the American negotiators had most prominently in mind were the trade preferences of the British Commonwealth. To many people in the United States these preferences seemed economically, if not morally, wrong; but many people throughout the Commonwealth regarded them as a family arrangement that was neither unvirtuous nor damaging to the world's prosperity: indeed, the very reverse. Among professional economists in Britain opinion was divided; some thought that speedy progress could be made after victory towards a world of impartial trade policies, but others believed that the attempt to move quickly in this direction would damage world trade and would in particular gravely endanger Britain's efforts to rebuild her shattered balance of payments.

This more remote aspect of the history of lend-lease could not in the present chapter be passed by, for it was prominent in the despatches, memoranda and minutes of 1941 and the early months of 1942. But for the historian of British war economy it must remain a minor theme, recognised but not pursued. After all, the British in 1941 were not devoting much of their time to blue-printing the world's commercial future or safeguarding their own. They were absorbed in the immediate struggle. Lend-lease made it possible for them to put more power into the struggle. That was its chief significance.

CHAPTER X

WAR TRANSPORT

(i)

The Effects of the Fall of France on Shipping¹

THE estimates of Britain's shipping prospects were peculiarly susceptible to the uncertainties that pervaded life in the summer and autumn of 1940. The enemy powers held the initiative. Would they concentrate their attacks against shipping? Where and in what numbers would U-boats, E-boats, aircraft and surface raiders attack? Where would mines be sown? How heavy and prolonged would the strain on the Royal Navy be? Would the east coast ports be immobilised and the west coast ports bombed? What new military demands for shipping would arise? What new help in ships and crews would come from the countries overrun by the Germans?

It was extraordinarily difficult to estimate even approximately the volume of shipping at British disposal, or its probable performance. Early in June, before France fell, the Minister without Portfolio thought it would be unwise to count on getting more than 35 million tons of imports in the second year of war. But at that time allowance had to be made for the heavy demands of exports to France upon shipping and port capacity. For shipping purposes, indeed, the fall of France was a disaster mitigated by one or two temporary compensations. The programme of exports to France melted. British ports became crowded with ships destined for, or belonging to the countries overrun by the Germans. The acquisition of this tonnage bred a fleeting optimism. The shipping position was called 'easy'; there was talk of cutting the merchant shipbuilding programme; the plans for buying ships in America remained conservative. Yet there was also an undertone of caution. Sinkings were increasing. What if this increase were the result, not of a special effort by the enemy, but of enduring adverse factors? By July, air attacks and mine-laying were beginning off the south and east coasts.

Under these conditions the main task was one for the immediate present—to draw in imports to the fullest extent that port capacity permitted. But the Government still tried to look further ahead. In

¹ This chapter is confined almost entirely to dry cargo shipping. The problems of tankers were special.

August 1940, the Minister of Shipping tentatively estimated to his colleagues that an average of perhaps 12.9 million deadweight tons of deep sea dry cargo shipping would be available for the United Kingdom import programme in the second year of war;¹ this should bring in—though the total might be ten per cent. or so less—about 42 million tons of imports. Would port capacity be adequate to handle 42 million tons? The responsibility for answering this question lay on the Minister of Transport, who had already been asked by the Economic Policy Committee to consider the effects on the west coast ports if it became necessary to close all the ports from Aberdeen on the east coast to Southampton on the south coast.

This problem was by no means new; as we saw earlier, committees had wrestled with it for the past seven years.² But, until war was perilously near, these committees had overlooked an essential lesson of the 1914–18 war, namely, that port congestion derives primarily not from discharging the ships or handling the cargo on the quay but from difficulties of removing the cargo from the quay. Diversion to the western ports would completely dislocate the normal channels of distribution; congestion would first appear in facilities for inland clearance and work its way back to the quayside. These principles were reaffirmed just before war began but by June 1940 they seemed once more in danger of being forgotten; they were ignored in a new attempt by the Ministry of Transport to estimate the maximum volume of imports that the west coast ports could clear. But even when a still further attempt took the right principles into account, it was impossible to make a reliable calculation because the necessary statistics of inland traffic movements scarcely existed. This attempt, made in the late summer of 1940, suggested that if diversion came, the ports could probably deal with about 40½ million tons of imports.

According to the very provisional forecasts of 1940, then, there might be shipping enough to bring in between 38 and 42 million tons of imports while the ports should be able to handle about 40½ million tons. Actually, in the last quarter of 1940 and the first quarter of 1941, the balance struck between shipping capacity and port capacity³ proved to be very close; but it was struck at a much lower level. Imports during this period were at an annual rate of less than 31 million tons⁴ and, once diversion had begun, the ports could barely handle them.

¹ For an explanation of gross tons and deadweight tons see footnote to Table 3 (c) on p. 80.

² See above, Chapter IV, p. 124.

³ Shipping and port capacity are not really two separate concepts; the time of turn-round in port is a powerful influence on the number of journeys a ship can make in a year.

⁴ Without allowing for seasonal differences.

The effects of the fall of France on shipping, in fact, belied the hopes of the summer of 1940 and surpassed the fears; during the whole of 1941 United Kingdom dry cargo imports were only 30.5 million tons. In the summer of 1940 the effects had been hard to foresee; but in retrospect they can be seen and summarised clearly. There occurred both a great increase in shipping losses and a reduction in the performance of the ships that were left. The German Navy, which had only sixty U-boats when war began, had over 140 by the summer of 1940. The occupation of the Biscay ports, by eliminating long journeys to and from bases, doubled the number of U-boats in the operational areas. Long-range aircraft could also now harass shipping in the Atlantic. In the Mediterranean, Italy, which had just entered the war, possessed about 100 submarines. The enemy's strength thus increased as British strength was grievously weakened through naval losses and damage off Dunkirk and Norway. The First Lord of the Admiralty told the War Cabinet in August 1940: 'In the last war we had the help of the U.S.A., French, Italian and Japanese naval forces. When convoy was introduced in 1917 we had 339 British destroyers. . . . Today we have 181.' New demands from the Mediterranean fell upon the scanty resources of the Navy and the threat of invasion kept strong naval forces tied to the English coast. So that, whereas in the 1914-18 war, the normal escort of convoys was eight to ten vessels, in August 1940 it was two or three. Until the spring of 1941 convoys could only be escorted a limited distance into the Atlantic, and the variation of routes was restricted because an escort leaving an outgoing convoy in the evening had to pick up an incoming convoy the next morning. Shipping losses were therefore inevitably heavy. Between June 1940 and December 1941 total losses of British flag tonnage were about seven million dead-weight tons,¹ or roughly thirty-six per cent. of the British merchant fleet at June 1940; this figure moreover does not include losses of neutral or Allied ships under British control.

Not only were shipping losses alarming. There was also a serious fall in carrying capacity—that is, in the amount of commodities that existing ships could carry in a given space of time. Carrying capacity is determined, broadly, by five factors—the time ships spend at sea, the time they spend on ordinary port operations, the time they spend undergoing major repairs, the use made of ships' space and the way voyages are planned. In the months following the fall of France, ships were spending more time at sea and more time in port both in loading and unloading and for repairs.

A variety of causes kept ships longer at sea. An insufficiency of escorts made evasive routeing a principal means of defence. Ships

¹ Dry cargo, 1,600 g.t. and over. The figure includes marine losses but war losses formed the great majority.

bound for the south Atlantic, for example, had to go via the north Atlantic: ships on the Spain and Portugal routes had to keep out of the range of bombers. And as convoys became fewer and larger, ships had to wait longer at convoy assembly points. Some short routes were closed, others almost closed. The only merchant ships to use the Mediterranean were the heavily escorted convoys that fought their way to Malta; all other merchantmen bound for the east had to go round the Cape. The delays grew worse when the Suez Canal was temporarily closed by enemy action.¹ In home waters, the English Channel was closed to deep-sea ships and those making for the east coast had to go northabout through the Pentland Firth; and these ships had to wait about for coastal convoys which consisted mainly of coasters and were therefore particularly slow. Finally, on balance, ships had to go further for their cargoes. In the first eight months of war, twenty per cent. of the United Kingdom's dry cargo imports (measured by weight) came from Europe and North Africa: throughout the four following years, only three or four per cent. There was however some considerable compensation: imports from North America increased at the expense of those from still more distant areas. The proportion of dry cargo imports that came from North America rose from thirty-six per cent. in the first eight months of war to fifty-one per cent. at the end of 1940 and to fifty-four per cent. in the calendar year 1941.

Ships, as we saw, spent longer in port for two reasons. First the ports held a large mass of tonnage immobilised under repair. This was to be expected. Damage from enemy action and also from marine causes² had increased. Some of the ships that were brought in by the Allies, and nearly all those that were bought second-hand from the Americans, were in a bad state of repair. The demand for repair facilities was now concentrated upon the United Kingdom because European ports were no longer open to British and Allied ships. But British facilities had shrunk because the south and east coast docks could not be fully used. By February 1941, possibly two million gross tons of British deep sea dry cargo shipping were immobilised under repair in United Kingdom and foreign ports. Such a figure, if maintained throughout 1941, would be equivalent to the sinking during the year of four million gross tons. Moreover, in addition to these repairs proper, ships were held in dock for degaussing against magnetic mines.

The second reason why ships spent longer in port was that the turn-round of ships and the time taken over all the ordinary port operations had increased. At the beginning of September 1940, the Admiralty gave the long-expected and long-dreaded word that,

¹ The Middle East could not be supplied from the Red Sea ports.

² For example, concentration of tonnage in the North Atlantic in the winter led to bad passages and damage, especially when there were deadweight cargoes such as steel which were liable to roll about in the holds.

owing to the danger from aircraft and E-boats, the east coast must be used as little as possible. On the next three nights the Port of London was heavily bombed and it was decided to remove all ocean-going ships from it. From 10th September only ships of 6,500 gross tons and under might enter the Humber and the ports north of it, and no ship larger than a coaster was to enter any port to the south of it. There were other less rigid restrictions. It was dangerous for diesel-engine ships to go to the east coast because they were particularly liable to detonate acoustic mines. Refrigerator ships and ships with particularly valuable munitions cargoes were too precious to risk on the east coast. It was desirable to keep fast ships away from the east coast because it was wasteful, and sometimes very difficult, for them to keep down their speed to that of the coastal convoys. As the shipping shortage grew, greater risks had to be taken. From January 1941, deep-sea ships were allowed into the Port of London up to the number of fifty. Ships up to 8,500 gross tons were allowed on the east coast. Nevertheless, the restrictions always remained severe. In peace the east and south coast ports account for about sixty per cent. of British dry cargo imports measured in tons weight. There are no comparable figures for the war years; but the fact that in 1941 only about twenty-seven per cent. of the foreign-trade cargo shipping was arriving at the south and east coast ports gives some idea of their changed status. In the last quarter of 1940, the figure was down to eighteen per cent.

By the end of 1940, conditions on Merseyside, Clydeside and in the Bristol Channel seemed to be fulfilling all the worst expectations about the confusion that diversion of ships from the east coast would cause. Complaints poured in about a multitude of difficulties—about shortages of transport, storage, labour and equipment, about consignees who could not be identified or who could not decide where they wished their goods to be sent. Suppose, on top of all this, there were heavy air raids on the west coast?

The difficulties were not caused by an increase of shipping going to the west coast ports for discharge. It is true that the convoy system brought ships to port in bunches. It is also true that in the last quarter of 1940, thirty-one per cent. more shipping was arriving at the Clyde ports than in the three months before France fell. But the Clyde was an exception. Shipping generally was so scarce that, in spite of diversion, total monthly arrivals with cargo at the west coast ports as a whole were a little less in the last quarter of 1940 than they had been in the quarter before June 1940.¹ Moreover, exports, which of course competed with imports for port facilities, were smaller.

The root cause of the trouble was instead just what the Ministry of Transport had foreseen—a complete dislocation of the machinery of

¹ There are no figures to show the change in the actual volume of imports handled.

distribution. 'Once the diversion of shipping had started,' writes the shipping historian,¹ 'every west coast port began to receive cargoes which it did not receive in peace or not in the same quantities. Often these cargoes required facilities both to discharge and to transport them which it was difficult to provide.' The discharge of unaccustomed cargoes tried the port authorities sorely; but the really fundamental difficulty was clearing imports from the quays. Indeed, there could be no discharge at all if the quays became blocked with cargoes that could not be moved. Imports might lie about either because there was no storage space to which they could be sent, or because they had to wait for transport. A real shortage of storage space persisted throughout the war, but it seemed worse in the winter of 1940-41 because individuals and government departments who wanted space for storage or for production were left to scramble uncontrolled for it. As for transport, it was gravely insufficient at the time of the port crisis. One example will show the dimensions of the problem. In peace, nearly eighty per cent. of Liverpool's imports leave the docks by road on short journeys and less than twelve per cent. are distributed by rail. But with diversion from the east coast, supplies travelled further afield and in 1944 nearly forty per cent of Liverpool's imports were leaving by rail.

For some commodities transport difficulties were particularly acute. In the rush to build up steel stocks, nearly $1\frac{1}{2}$ million tons were imported in the last few months of 1940, compared with a normal peace-time rate of about 50,000 tons a month. And steel could only be moved in special wagons called bolsters which were very scarce. Other imports were of little value unless special plants in the east coast ports could be used. For example, refrigerator ships were too precious to risk on the east coast; yet half Great Britain's meat imports normally came through London, which possesses the bulk of the cold storage accommodation. This meant many complications; meat can only travel in heat-insulated vehicles and, moreover, the London cold stores were normally fed from the waterfront.

Diversion of shipping thus put a heavy strain on the port and transit system. The general condition of 'port congestion', that is, when ships actually have to wait for berths, never really arrived. But, if the ports had been asked to handle imports at the rate of the first year of war, or if the east coast ports had been completely closed, congestion would have been acute and even the most remarkable feats of organising ability might well have been unable to disperse it. As it was, individual ports were at times uncomfortably full. Ships were heavily delayed in them and this in turn meant fewer round voyages a year. Unfortunately, the loss cannot be measured exactly since the systematic examination of time spent in

¹ Miss C. B. A. Behrens, author of the *Shipping History* to be published later in this series.

United Kingdom ports did not begin until April 1941; it must, however, have been considerable. Abroad, the port delays were often still more serious than at home; in the Middle East, for example, conditions were truly chaotic.

As shipping capacity declined, the demands upon it increased. For from the late autumn of 1940 the centre of military activity was shifting to the Middle East. An increasing number of ships was needed to carry troops and supplies there from the United Kingdom, the Empire and the United States. Then, from June 1941, Russian needs for help had to be considered. The allocation of shipping to the Services rose by about 1.3 million deadweight tons between August 1940 and December 1941. The Ministry of Shipping always aimed at using these ships—even troopers—wherever possible for carrying civilian cargoes on homeward or cross ‘legs’ of their voyages. Thus the increased Service demands after Dunkirk did not so much decrease the shipping available for imports as decrease its carrying capacity. The authorities could not concentrate as much shipping as they would have wished on the short Atlantic haul.¹

The relative significance of all these effects of the fall of France upon shipping cannot be assessed here;² but the gravity of them in combination must be emphasised. By the end of 1940, the optimism of the summer months was banished. In December 1940, the Prime Minister was writing:

The decision for 1941 lies upon the seas. Unless we can establish our ability to feed this Island, to import the munitions of all kinds which we need, unless we can move our armies to the various theatres where Hitler and his confederate Mussolini must be met, and maintain them there, and do all this with the assurance of being able to carry it on till the spirit of the Continental Dictators is broken, we may fall by the way . . . It is, therefore, in shipping and in the power to transport across the oceans, particularly the Atlantic Ocean, that in 1941 the crunch of the whole war will be found.

(ii)

The Shipping Struggle

In fighting to overcome the shipping shortage, the Government had four major tasks. First, every effort must be made to lower the losses by better protection of merchant shipping. Secondly, the supply of ships must be increased to make good the losses. Thirdly,

¹ It was estimated that the ships carrying supplies to the Middle East could have carried between 2 and 2½ times as much if they had been employed on the North Atlantic.

² They will be analysed in Miss Behrens's *Shipping History*.

the time ships spent at sea and in the ports and repairing docks must be reduced as low as possible. And fourthly, shipping must be carefully allocated between all the competing demands in order to make the most profitable use of it. The tactics and strategy of shipping defence are the province of the Service historians; in this book we must confine ourselves to the other three tasks of the Government.

The most obvious need after trying to reduce the losses was to make them good. For if tonnage continued to decline steeply, the prospects for the later years of the war were grim. The British shipbuilding industry could not hope to replace losses anywhere near the 1941 level of about five million deadweight tons. The merchant shipbuilding programme at the end of 1940 was only for an output of just under two million deadweight tons per annum and the output of completed ships had not yet reached that rate. Moreover, the demand was increasingly for large, fast ships which took longer to build. This programme for the merchant navy had to compete for skilled labour with naval construction and conversion and with repair work. Efforts to increase the supply of labour bore fruit only slowly, and meanwhile there was constant pressure to divert labour from new building to repairs. It is not surprising that the tonnage of deep sea dry cargo shipping brought into service between June 1940 and December 1941 was only about thirty per cent. of the British flag tonnage that was lost.

Replacement of losses must therefore come largely from foreign sources. Before the war, probably about forty-three per cent. of the United Kingdom's imports¹ came in foreign ships, and in the pre-war planning it had been assumed that the United Kingdom would be able to time-charter the bulk of the neutral fleets. But, in the first period of the war, these fleets had shown themselves reluctant. This was due partly to their anxiety to maintain an irreproachable neutrality and partly to the enticements of more profitable alternative employments. When neutral ships did make themselves available, it was at fancy freight rates far above the British ones. However, the prospects became very different after Germany had overrun Denmark and Norway, the Low Countries and France, and after Italy had invaded Greece.

Between the fall of France and the end of 1941 the British flag acquired a big volume of foreign tonnage—nearly three million deadweight tons. Indeed, these transfers of tonnage and new building together replaced all but about two million deadweight tons of the shipping that was lost. The foreign ships that were transferred to the British flag were of various kinds. Some of them of course were captured German and Italian ships. But many of them were ships from Denmark and France. The ships from these two countries whose

¹ Measured by weight. The estimate is very tentative and may need correction in the light of further research.

lawful Governments remained in occupied territory were treated for the duration of the war like enemy ships.¹ A good many, of course, made their way voluntarily into British service but any recalcitrants in Allied ports or on the high seas could either be requisitioned or seized in prize.² The British Government was also much interested in the fate of the Danish and French ships—and of the German and Italian ships—immobilised in neutral, chiefly American, ports. After much diplomatic discussion, the United States Government took control of the Danish, German and Italian ships lying idle in United States ports³ and also negotiated about the enemy ships in Central and South American ports. None of these ships were transferred to the United Kingdom. The British hoped that American use of all these ships would relieve the shipping shortage in the western hemisphere and so make it easier for the United States to spare ships for United Kingdom services; but there was no promise.

The European conquests of Germany and Italy not only brought foreign tonnage on to the British register; they also secured for the United Kingdom much greater assistance from the three great shipping nations—Holland, Norway and Greece—which had been neutrals and were now Allies.⁴ The negotiations of shipping agreements with these Allies was by no means easy. There were difficulties over the amount of tonnage to be chartered and still greater complications over the rates of hire. For example, the Norwegians and the Dutch were anxious to keep as many of their ships as possible trading free on the safer routes in order to earn badly needed dollars; the Dutch, in addition, bore responsibilities to the Netherlands East Indies. For reasons that varied from country to country, the attempts to bring the rates of hire for Allied ships more nearly into line with British rates were a failure.

As has been seen, the acquisitions of tonnage from countries overrun by the enemy and the prospect of more to come had in the summer of 1940 inspired optimism about British shipping prospects. The sudden gains were indeed a blessing—not because they made the shipping position easy but because without them it might, by the late spring of 1941, have become disastrous. The same blessing could not be bestowed twice. Danish and French ships could not be seized a second time. Allied Governments without countries could not build

¹ They were ultimately treated for compensation, etc., as if they had been brought voluntarily into United Kingdom service.

² There was reluctance to deal too harshly with the French; the story is complicated and will be dealt with fully in the Shipping History.

³ French ships in U.S. ports were not requisitioned by the United States until after Pearl Harbour.

⁴ Unfortunately there are no comparable figures to show the total amount of foreign shipping at British disposal before and after the fall of France: for, before the summer of 1940, most of the foreign ships working for Britain were not on time charter but were chartered independently for single voyages.

ships. Meanwhile the losses continued. The nation could squeeze through 1941. But what of 1942 and 1943? Then, only one thing could replace heavy losses—American building. After the United States entered the First World War they had built up an immense shipbuilding capacity from nothing. This feat must be repeated. In 1942 and 1943 American help would be urgently needed. There was also need of it in 1941.

In March 1941 the Prime Minister sent Sir Arthur Salter with a broad mandate to establish a British Merchant Shipping Mission in Washington.

The Battle of the Atlantic has begun [he wrote]. The issue may well depend on the speed with which our resources to combat the menace to our communications with the western hemisphere are supplemented by those of the U.S.A. I look to you to bring this fact home to the U.S. Administration and to convince them that they must act accordingly.

The Mission's chief tasks were to secure a large allocation of American tonnage for British services, a great increase in American shipbuilding, help in repair facilities, together with defensive equipment from United States yards and administrative co-operation in general shipping problems. The Mission was also expected, by presenting the facts of the shipping position, to give what help it could to the negotiations for American naval co-operation.

The background against which the Mission had to work has already been sketched in the last chapter. The success of its work was great. By December 1941—before the entry of Japan and the United States into the war completely transformed the situation—prospects were good. The American shipbuilding programme had been raised to eight million deadweight tons for 1942, and this, with British and Canadian building, would more than cover probable losses.

All this gave Britain hope for the future when hope was badly needed. But how great was United States help in 1941 itself? Their help with tankers was invaluable. By the early summer of 1941, oil stocks were down to danger level—4½ million tons—and an urgent call went to the United States for tankers to raise these stocks by one million tons. The help given was sufficient to raise oil stocks by the end of 1941 to seven million tons—the limit of British storage capacity.

American aid with dry cargo tonnage was much less considerable. For the United States merchant navy was small; it possessed only seven million deadweight tons of dry cargo and passenger vessels, of which four million deadweight tons were engaged on coastal services.¹ And in 1941, the total output of United States shipyards was only one

¹ Including the trade from the east to west coasts through the Panama Canal.

million deadweight tons. Moreover, American ships could be withdrawn from the most profitable employments only by overruling commercial and civilian interests which could muster powerful political support. Nor must it be forgotten that the Neutrality Act prohibiting United States ships from entering the war zones was not repealed until November 1941.

In these circumstances, the British could not expect very much. Between Dunkirk and Pearl Harbour they managed to buy sixty new United States ships totalling 600,000 deadweight tons and 100 second-hand ships totalling 900,000 deadweight tons; but not all the new ships were delivered in 1941 and many of the second-hand ships were in too poor repair to take to the ocean for some time. The number of American ships that circumvented the Neutrality Act on the Atlantic route was negligible throughout 1941. American help with shipping for the Middle East was rather larger, for in April 1941, the President excluded the Red Sea from the official war zones. Between the summer of 1940 and Pearl Harbour, the United States sent a total of 103 ships to the Middle East with war and civilian supplies. The United States helped in other ways. In the last nine months of 1941 there was a monthly average of about 430,000 deadweight tons of British and British-controlled dry cargo ships repairing in United States ports. In addition, something like a million deadweight tons of the enemy ships transferred to the British flag were secured through action of the United States. American pressure also helped to bring in some of the foreign tonnage acquired by the Ministry of Shipping on time charter. When all is considered, however, American help in 1941 was in no sense a decisive factor in the battle of supply at sea.

So far we have been considering ways and means of making good the shipping losses. Unfortunately, it is impossible to make an exact comparison of the total volumes of shipping at British disposal before and after the fall of France.¹ We can only estimate tendencies in the large. New building, the acquisition of enemy shipping, the increase in the amount of foreign tonnage on time charter and the help from America—all these together must have gone a considerable way towards the replacement of losses. The total net loss of tonnage must have been quite low.

In consequence, a high proportion of the fall in carrying capacity must have been due to the alarming decline in shipping performance. As we saw, this decline had three main causes. Ships spent longer at sea. Ships spent longer in port. Large blocs of tonnage were immobilised under repair. The drive to reduce the length of voyages, to speed turn-round in the ports and to hasten repairs involved many

¹ Because of the difficulties about foreign shipping explained in the footnote on p. 256.

problems that touched many departments. At the ministerial level, the Import Executive from January 1941, and then from March 1941 the Battle of the Atlantic Committee, were designed to keep watch on the situation as a whole and to initiate action.

The prospects of reducing the time ships spent at sea were not really very great. At the beginning of 1941, the Import Executive was discussing the possibilities of shortening the length of haul by a more intense concentration on near sources of supply. But when military needs sent ships further afield, for example to the Middle East, they naturally brought imports back from there. There were all kinds of other difficulties even after lend-lease had saved the payments situation—the needs of the Dominions and Colonies as exporting producers could not be completely disregarded, the buying programmes of the importing departments were not infinitely variable, all sources of supply were not technically interchangeable, the nearer sources could not necessarily supply extra quantities. So, as has been shown, the proportion of British imports drawn from North America showed little increase in 1941.¹

The length of haul was one important factor in voyage time; the other was convoy delay. Here again there were no obvious remedies. Escorts were so scarce that it was impossible to run more convoys. A difficult choice had then to be made. If ships were allowed to sail independently there was an extra grave risk to their safety; but independent sailings would accelerate the movement of shipping and give an immediate and badly needed increase in the rate of import.² First, in November 1940, ships of thirteen knots and over were allowed to sail independently; in the following spring the limit was lowered to twelve knots. This limit was maintained in spite of some misgivings about increased sinkings. Indeed, in March 1941, the Import Executive was discussing whether the whole convoy system should be abolished; the maximum saving on a round trip, however, did not seem big enough to justify the increased losses that would result. The same conflict between delay and safety arose over ships going to and from the east coast. Waiting for the coastal convoys which provided defence against air attack caused delays; but the risks of sailing unescorted were too great.

Why then go to the east coast ports at all? Here we are back at the port problems mentioned in the last section. Diversion to the west coast ports had created confusion and if the east coast ports had been completely closed, there would have been severe port congestion. As it was, elimination of port delays was one of the most promising methods of improving the carrying capacity of British ships. In

¹ See above, p. 251.

² It would, of course, only be a short-term increase if sinkings rose.

December 1940, the Prime Minister sent a personal minute to the Minister of Transport:

It is said [he wrote] that two-fifths of the decline in the fertility of our shipping is due to the loss of time in turning round ships in British ports. Now that we are confined so largely to the Mersey and the Clyde and must expect increasingly severe attacks on them, it would seem that this problem constitutes the most dangerous part of our whole front. Would you kindly give me a note on:

- A. The facts.
- B. What you are doing.
- C. How you can be helped.

At the same time, a sub-committee of the Economic Policy Committee was studying port problems.

Clearing up the confusion in the west coast ports called for much effort over a wide front. Better planning of inland transport, of storage space, of import, loading and movement programmes was needed. In the ports themselves the crying need was for improved organisation. At the end of 1940 the port and transit control had two main features. A very efficient headquarters body called the Diversion Room met every morning to determine the port to which each ship should be routed. The task of ensuring a quick turn-round of ships once they were in port lay with Port Emergency Committees. But these committees represented a variety of local and competing interests and had no power over government departments nor over port labour. In December 1940, the Government hoped to transform these controls by the appointment of Regional Port Directors to the Clyde, the Mersey and the Bristol Channel.¹

Upon these directors were devolved the Minister of Transport's comprehensive powers in the ports. They were given overriding authority over any individual or government department and also, in the Clyde and the Mersey, control over port labour. It was extraordinarily difficult to find directors with the necessary experience,

¹ At the same time the Government agreed upon two longer-term port improvements which did not, however, affect the immediate crisis:

(1) Dock labour which was notoriously ill-organised was to be decasualised. A first step in this direction had been taken in June 1940 but it was not enough. In January 1941, it was agreed that the dock labour on Merseyside and Clydeside should be brought directly under the control of the Ministry of War Transport and its Regional Port Directors. From April 1941 the Ministry employed the dockers in these areas and guaranteed them a full week's work. In September 1941, a National Dock Labour Corporation was set up, and its local Labour Boards became the direct employers in all the ports except Merseyside and Clydeside. In the same month, the industry was covered by an Essential Work Order (see below, p. 306).

(2) Inland sorting depots, where incoming cargoes could be sorted a safe distance away from the quay, were to be set up. They would keep the quays clear and would be a safeguard if the ports were bombed. There was much argument as to whether it would not be better to spend resources on improving transport rather than erecting depots. The final decision to proceed with the depots was not taken until March 1941.

character and ability. There was no simple and uniform story of success. The greatest achievements were in the Clyde, where diversion of shipping had caused the greatest difficulties. The Clyde had to deal not simply with different kinds of imports but with a larger total volume. Moreover, in the main port, Glasgow, there was a serious lack of shed and storage space, and the rail connections with the south and east were notoriously bad. Yet by the end of March the Regional Port Director could report that traffic congestion had been eliminated.

The threat of a slow strangulation of the British economy by congestion in the ports did not pass because the bombing had ended—for bombing of the ports did not reach its peak until May 1941—nor merely because of longer hours of daylight. Congestion of the quays disappeared because, although transport and storage space were still very scarce, there was a marked increase in the efficiency of management of existing facilities. It was not until May 1941 that a central control of storage was set up which could allocate the available space between port clearance and other demands. It was much later that the first real attempt was made to budget inland transport facilities and bring road, rail and water traffic into one co-ordinated system. In the spring of 1941, therefore, decisions about the claims of port clearance upon storage and inland transport had to be taken in the ports themselves. In the Clyde at least, port clearance became a finely planned operation in which everyone alike—shipowners, government, port and railway officials, master stevedores—knew and performed precisely defined duties.

Government departments helped the port authorities in several ways. In February 1941 each importing department emulated the Ministry of Food by employing a movement officer in each port to funnel all the department's demands for transport from the ports; these officers were responsible for knowing where every commodity was needed, whether the consignee could accept it and alternative destinations. Importing departments could also help by planning their import programmes well ahead in order to make sure that there were not sudden demands for large quantities of individual commodities, especially for those that were difficult to handle; the troubles caused by large arrivals of steel in the winter of 1940-41 were a cautionary lesson.

Another way of helping to ease port troubles was by loading cargoes so as to put as little strain as possible on the railways and coastal shipping. But this was very difficult. In ports abroad, the loading authorities were faced with immensely complicated requirements. To save shipping space ships should be loaded with the right combination of cargo bulky in relation to its weight and cargo heavy in relation to its bulk. To save time, ships must not discharge at more

than one port in the United Kingdom. There were, too, the intricate and changeable regulations by which ships were, and were not, allowed on the east coast. These were only a few of the problems and the loading authorities' task was doubly difficult because purchasing departments, in particular the Ministry of Supply, often did not know in advance the precise destination of the cargoes. It is not therefore surprising that the distribution of cargoes between the east and west coasts did not work out well; ships often had to call at more than one port or else there were unnecessary cross movements of imports from west to east England and from east to west.

But, though these loading difficulties still persisted at the end of 1941, the general port crisis was over by the spring of that year. Indeed, when the worst air attacks were launched against the western ports in May, the damage and delay they caused were extraordinarily small; the rate of turn-round of ships actually rose during the month. Reorganisation in the ports had prevented the threatened paralysis of British war economy and had increased shipping capacity by speeding up the turn-round of ships.

The attempts to increase the effectiveness of the merchant fleet by reducing the volume of tonnage immobilised under repair met with less success. By the beginning of 1941 there was grave concern over the mass of shipping held up in the ports for repair. Much research still remains to be done on the whole subject of ship repairs. On the surface it would seem that the machinery to determine priorities between merchant repairs, naval repairs, conversion and new construction of naval and merchant ships was inadequate. Nor was there any central machinery to distribute merchant ship repairs in the most profitable way between the repairing firms. During the spring and summer of 1941, the crisis was tackled by a variety of short-term expedients. Only essential repairs were permitted. Orders were given that, in general, repairs in the United Kingdom were not to be done if they would take more than six weeks to complete. Shipowners were directed to repair their ships abroad whenever possible and merchant ship repairs were given priority for two months over long-term naval repairs, new naval construction (except escort vessels) and, if necessary, merchant ship construction. These expedients reduced the tonnage repairing in the United Kingdom by about half a million gross tons within four months and by about a million by the end of the year. But the cost was heavy. The amount of naval repairs was for some time reduced. The new construction and conversion of merchant ships were dislocated. The efficiency of repaired ships suffered because repairs had been cut to the bone. And in any case, the total volume of merchant shipping under repair did not decline; the ships sent for repair abroad carried the congestion with them.

So far, we have been considering the struggle to increase the supply of shipping and its carrying capacity. We must now turn to the third problem we undertook to examine, namely, the allocation of resources amongst the different claims upon them. There were three broad categories of demand—Service requirements, the needs of the cross-trades (that is, trade between ports in countries other than the United Kingdom and Eire), and of course the United Kingdom import programme. Within the import programme there were all the customary problems of deciding between competing claims of food and raw materials.

As has been seen, the shipping allocated to military demand had some importing value, but not nearly as much as it would have had if it had been directly allocated to United Kingdom importing services. The military demands upon shipping were strictly limited by the numbers of trained and equipped soldiers and airmen that could be spared from the defence of the United Kingdom; in the papers of the Chiefs of Staff and Defence Committees, shipping does not figure as a restriction on military plans until the very end of 1941. It was indeed fortunate that the shipping position, bad as it was, did not face this country with the choice between starving its war factories or its people and abandoning to the enemy its vital defences in the Middle East. As it was, it seems to have been generally agreed that the shipping necessary to meet the military demands must be found. What this amount should be was increasingly subject to review by a Military Requirements Committee which tried to prevent waste of space and urged the Services to programme their requirements more efficiently. Only in one special case were military requirements cut in the interests of the United Kingdom import programme. In March 1941, the Prime Minister was worried about the civilian meat ration. Meat imports competed directly with the Services for refrigerated ships which were usually large and fast and very useful as troopships, armed merchant cruisers and so on. An agreed scheme to bring in an extra 118,000 tons of meat per annum cost the Middle East 22,000 troops and their stores.

The demands of the Middle East were one reason for keeping so many British ships in the cross trades. The Import Executive was anxious to remove ships from these trades and use them exclusively to bring imports to the United Kingdom. It did not really need the pressure exerted by the Americans, who argued that the British could not so badly need help while they kept so many of their ships on the safe routes. But it was very difficult to bring these ships home. At the end of 1940, for example, 200 ships on the United Kingdom register were trading abroad. Of these, ninety-five were on local trading and were either unsuitable for other work or else engaged on Indian coasting work. Of the remaining 105, all but twenty were

either unsuitable for United Kingdom work or were taking war supplies to the Middle East, or were on the foreign leg of a triangular journey that brought them later to the United Kingdom or Middle East, or were on vital inter-imperial work. And these twenty were already being withdrawn. It was no easier to withdraw the Allied ships that were trading free in the safe zones. For example, although lend-lease removed the main reason for the Norwegians' anxiety to keep ships in the safe trades, it was commonly found that the ships in question were employed either on war work for Britain or on commercial work for the United States themselves: in the latter event, they could be withdrawn only at the expense of American interests.

The amount of British registered shipping trading abroad was about the same at the time of Pearl Harbour as at the fall of France—three million deadweight tons or so. It had become very important to make the best possible use of this shipping. But this was difficult, since in 1941 none of the demands on the tonnage operating east of Suez—other than the demands for the Middle East—had as yet been programmed. The authorities in London were faced with the problem of assessing demands which often came from politically independent territories, and of controlling supplies of shipping which consisted not only of British and British-controlled ships but also of a large number of free ships. British and British-controlled ships trading abroad were constantly under review. When it seemed that any service supplied by these ships could be abandoned, or that any Dominion-registered ship was urgently needed for the war zone, negotiations were begun with the Governments that would be affected.

To sum up so far: military needs for shipping in this period were not seriously questioned and very little tonnage could be brought home from trading abroad. In consequence, the third and major claimant on shipping—the British import programme—was a residuary legatee. There were three stages in drawing up an import programme. First of all, the Ministry of Shipping must provide an estimate of total importing capacity. Secondly, this capacity must be allocated between competing claims. Thirdly, the Ministry of Shipping must give effect to the allocation.

In the six months that followed the fall of France, the extreme uncertainty about importing capacity made it almost impossible to compose an import programme worthy of the name. At the beginning of June 1940, departments were told that it would be provident to count on no more than 35 million tons of imports, of which the Ministry of Food should have 15 million tons, the Ministry of Supply 19 millions and the Board of Trade one million. But while the Minister of Food and the Minister of Supply were still busy pointing out the immensely serious consequences of their 'hypothetical' minimum import programmes, the shipping situation was changed by the fall of France.

The immediate task then was to take advantage of the sudden shipping abundance to lift supplies from countries threatened by the enemy and to bring in the maximum amount of raw materials and easily stored food supplies. For the moment an annual import programme had become a little academic. It was agreed, however, that the temporary heavy imports must be used not for consumption but for stocks. Departments should aim at reducing food and raw materials consumption towards the level appropriate to a 35 million ton import programme. But it was also agreed to ease the transition to a drastic livestock policy by importing more animal feeding-stuffs than a 15 million ton import programme permitted and to help the Colonies and Dominions by continuing for the time being to import fresh fruit. The 35 million ton programme was therefore dead, not only as an estimate of importing capacity but as a guide to departments in framing their loading programmes and their consumption policies.

In August 1940, the Minister of Shipping was estimating importing capacity in the second year of war as between 38 and 42 million tons,¹ and departmental import programmes matched this calculation. In September, however, total imports were only coming in at an annual rate of just over 35 million tons; a slight improvement in October did not promise to be permanent. On 8th November the War Cabinet ordered a review of import programmes on the assumption that the United Kingdom could not import more than 35 million tons in the second year of war. Departments were also instructed to assume that the existing ratio between departmental programmes would be preserved, thus giving about 15½ million tons for food, 18½ million tons for raw materials and one million tons for miscellaneous items.

Again, the Ministers of Food and Supply reiterated the grave insufficiency of their shares of this programme. The Minister of Food alleged that the supply of calories would be perilously near the margin beyond which lay actual hunger. Unless and until a greater supply of food became available from home agriculture and the Government and public were willing to accept drastic changes in diet, these further cuts in food imports were not safe. The Minister of Supply argued that he could not cut his programme below 21·2 million tons without entrenching on the iron and steel requirements of essential transport services and war production. The arguments and rivalries were not resolved at this time by inter-departmental inquiry or by any firm decision possessing War Cabinet authority. At the end of the year, the initiative still lay with the importing departments and the Ministry of Shipping.

By the end of 1940, it was obvious that the methods for allocating importing capacity were wholly unsatisfactory. Importing departments

¹ See above, p. 249.

had drawn up loading programmes¹ for September, October and November appropriate to a total import figure for the year of 42 million tons, but in fact imports in those months only came in at a rate of 35 million tons. Loadings for December were arranged to match a 35 million ton programme but imports in that month were at a rate of only 30 million tons.² In these conditions, the absence of clear, ministerial direction on import programmes and priorities meant that the import programmes were in fact decided, as the Ministry of Food bitterly remarked, by 'a more or less obscure official of the Ministry of Shipping'. Officials of the Ministry of Shipping had indeed a thankless and difficult task. In arranging the loading of ships they had to wrestle with all the problems of shipping and port technique. They must try to make full use of shipping space and yet load ships down to their marks. They must take account of seasonal changes in shipping efficiency on certain routes and for certain cargoes, and of seasonal changes in the requirements of exporters and importers. They must find cargo suitable for particular ships loading in particular places.³ On top of all this they had thrust upon them decisions involving high economic policy. Until the beginning of 1941, there were not only no firm directions on priorities between food and raw materials but the raw material import programme itself was not divided up into priorities. It is not surprising, therefore, that when the Ministry of Shipping was left to cut demands on shipping to fit capacity, the result was unsatisfactory. In September, October and November, for example, when total imports were at an annual rate of 35 million tons, the Ministry of Food was receiving imports only at the rate of 14 million tons a year instead of the 15½ million tons to which it was entitled.

The general dissatisfaction with the handling of import programmes led, at the end of 1940, to the establishment of the Import Executive.⁴ The Ministry of Food, which was most dissatisfied of all, then had cause for jubilation. In January 1941, the Import Executive accepted 15·42 million tons as the Ministry of Food share of a total import of 35 millions, and agreed that the proportion allotted to food should be the same if imports fell below that total. The Ministry of Shipping was also instructed to arrange loadings to ensure that food got its full share of imports in the short as well as the long run. But imports were shrinking rapidly and by mid-March were down to a prospective

¹ Loading programmes were, of course, larger than arrivals programmes: they had to allow for sinkings and other misfortunes.

² Without allowing for seasonal differences.

³ By 1942, the Ministry of War Transport in collaboration with the importing departments had developed great skill in translating the import programmes into practice.

⁴ See Chapter VIII, p. 218 above.

total for the second year of war of 30 million tons, out of which food could claim 13.2 million tons. The Prime Minister was expressing alarm at 'the apparent tendency in our food policy towards a basal diet of bread, oatmeal, fats and potatoes'; he affirmed that there should be as little interference as possible with the normal consumption habits of the people and no unnecessary slaughter of livestock.¹ A few days later, the Minister of Food formally asked the Prime Minister that absolute priority be given to food shipments up to 15 million tons in the second year of war. The next day, the Prime Minister directed a fresh allocation of tonnage between the importing departments. Assuming total imports in the calendar year 1941 of 31 million tons, the Board of Trade should have one million tons and Food and Supply each 15 millions; any surplus or deficit should be shared in the ratio Food 1 : Supply 2.

Import programmes during 1941 were, then, settled on the basis of directions about the ratio in which competing claims should be satisfied. This was a great improvement on the previous arrangements where there had been no directions at all; but it was not in itself a very advanced stage of planning. The ratios were not fixed after detailed and critical scrutiny of departmental requirements but were rather a tribute to the superior persuasive ability of the Ministry of Food compared with the Raw Materials Department. At the time, indeed, the Prime Minister's ruling of March 1941 was greeted in some quarters with genuine horror. Disastrous effects upon war production and raw material stocks were prophesied. Only the previous November the Minister of Supply had said he could not manage on less than 21 million tons of imports and now he was told to expect not more than 15 millions. As for the food claims, it was difficult to believe that the British people were near their nutritional minimum when the extraction rate of wheat had not yet been raised, when feeding-stuffs were still to be imported and large areas of arable land were growing food for animals instead of for humans.

None of the prophesied disasters, however, came. Total imports for the year 1941 were only 30.5 million tons, of which 14.7 millions were food and 15 millions raw materials. Yet between the fall of France and Pearl Harbour food stocks rose by nearly 1½ million tons and raw material stocks by well over 2½ million tons.² Nor was war production held up by general raw material shortages.

It is clear in retrospect that minimum food requirements were considerably, and raw materials requirements wildly, overstated.

¹ The release of refrigerated tonnage to maintain the meat ration also, came up at this time. See above, p. 263.

² Food stocks other than on farms, raw material stocks for materials covered by the import programme.

But the stock-building achieved during 1941,¹ out of an import total that would have seemed catastrophically low in the summer of 1940, was an impressive performance. It was paid for largely by adjustments in British industry and agriculture, by a rigorous reduction of exports, of capital equipment and of the civilian standard of living.²

(iii)

Inland Transport

In May 1941, the Ministry of Transport and the Ministry of Shipping—hitherto quite separate departments—were united into the Ministry of War Transport. This was logical. The Battle of the Atlantic might have been lost in the ports, where land and sea transport meet, or in the system of inland transport clearing the ports. Clearance of the ports, however, was only one part of the whole complex process of the inland transportation of civilian and military material and passengers. In the autumn of 1940, the efficiency of the inland transport system was being seriously strained by air raids and by the diversion of shipping to the west—difficulties that had long been expected. What plans had been made to take the strain? Had they been adequate?

The inland transport of the United Kingdom is divided between the railways, road transport, inland waterways and coastal shipping. An assessment of the relative importance of these services in goods traffic will vary according to the time and the methods of measurement. If we take 1944 we find that at that time the railways were carrying each month about 20 to 25 million tons of goods traffic, inland waterways about one million tons, road haulage about 4½ million tons and coasters in domestic service 2½ million tons.³ Such figures are only very rough; moreover, in this case they refer only to the weight of commodities carried and not to the really significant measurement, namely, the weight multiplied by the length of haul.⁴ But any other calculation would illustrate the same central fact—that railway performance is necessarily at the core of all transport plans.

To estimate in peace-time the strain on the railways in war would be in any circumstances an immensely complicated task. It would be

¹ Until the spring of 1941 it was nobody's specific business to watch the general stock position. In May 1941, the Lord President's Committee undertook a regular review and a statistical series was started for this purpose.

² See below, Chapter XII.

³ Sir C. Hurcomb: 'The Co-ordination of Transport in Great Britain during the Years 1935-1944' (*Journal of the Institute of Transport*, Vol. 22, No. 3, May-June 1945). The figure for road haulage excludes the bulk of retail distribution and a large tonnage of commercial short distance traffic—both large but unknown quantities.

⁴ Ton-mileage figures exist for the railways but not for other forms of transport.

necessary to calculate not only the volume but also the type and direction of imports and of all the most important movements of commodities about the country. On top of this goods traffic, allowance would have to be made for passenger movements—for ordinary travellers, for troops and for emergency calls such as evacuation. This picture of demand would have to be constructed on certain chosen assumptions. Not only must the planners have before them an outline import programme but they must know whether ships would be diverted from east coast to west coast ports and in what numbers. They must also make their assumptions about the reduction in the performance of road transport through cuts in petrol supplies, and of coastwise shipping through the removal of ships for other purposes, delays at sea and so forth. Against such a survey of demand would then be measured railway capacity and railway organisation. Would the railway track and signalling facilities be adequate in all sections? Would specific junctions, exchange points and marshalling yards be hopelessly overstrained? Would there be enough locomotives, enough wagons of both the ordinary and specialist kinds, and could these supplies be more efficiently organised than in peace? Moreover, in calculating railway capacity, allowance would have to be made for possible dislocations and reduced efficiency through air raids.

In the years before 1939 it would certainly have been impossible to draw up a balance sheet of this kind which had any claim to statistical accuracy. But statistical accuracy was not required. What was wanted was an attempt to see the problem as a whole and to form some provisional and general estimate of its size. This attempt was not resolutely made. In the First World War the railways had been severely strained. Transport conditions had of course changed greatly between the two wars, if only because of the growth of the road haulage industry. But there was much that was unknown about these changes. Existing knowledge was certainly not sufficient to warrant the conclusion that the railways possessed enough spare capacity to deal with almost any demands likely to be made upon them. This conclusion nevertheless dominated all inland transport planning up to the eve of the Second World War. Obsessed by the idea of 'surplus capacity' in peace time, the railway companies seem constantly to have overrated their capabilities in war.

Until the Munich crisis, the only attempt to estimate railway capacity was that contained in the report of the committee appointed to study the diversion of shipping to the west coast ports.¹ The committee had procured from the railway companies and port authorities estimates of the maximum tonnage that could be carried from each of the west coast ports. It had added up the answers and concluded that whereas the railways had carried under 17 million

¹ See page 124 above.

tons of traffic a year from these ports between 1927 and 1929, they had capacity for about 75½ million tons. But, as an earlier chapter showed, these calculations had taken each port in isolation and had paid no attention to traffic movements inland nor to the special facilities needed to carry particular goods.

A more promising approach to the problem of railway capacity in war time was begun by the inspecting officers of the Ministry of Transport. In 1936 they produced a list of some sixteen principal points and areas where congestion was most likely to occur if war came. This was only a rough preliminary survey but it would have been a good starting point for action. It was, however, almost immediately forgotten and was not considered again until May 1939.

Just after Munich, the Minister of Transport admitted that although numerous plans had been discussed between government departments and the railways, his Ministry had been unable to ascertain the total of demands and relate them to the capacity of the railways. An inter-departmental committee was set up to remedy the position. This committee formulated priorities for the guidance of the railways, but it made practically no headway in adding up demands and comparing them with railway capacity. Indeed, the sub-committee composed of the departments concerned with supply did not meet at all between the end of 1938 and the outbreak of war.

The Mines Department analysed its war-time demands on the railways; it seemed that the railways would have to carry about 250 million tons of coal a year instead of the normal 180 million tons, in addition to coal traffic diverted from coasters to the railways. The Food (Defence Plans) Department also produced a careful study of the effects upon inland transport of the diversion of food imports to the west coast. But there is no evidence that these two sets of figures were related to each other or to the capacity of the railways.

In the year before the outbreak of war, doubts were voiced in the Ministry of Transport about the possible achievements of the railways. The earlier estimates about clearance from the west coast ports were judged 'nonsense'. The Minister foresaw that there would be difficulties 'in placing a sudden demand on the railways for greatly increased traffic in unfamiliar channels'. But the optimism of the railway companies themselves was still very strong. In May 1939, the chairman of the Railway Executive Committee was assuming that the ton-mileage of goods traffic would increase by 100 per cent. but that, provided passenger traffic was drastically cut and the turn-round of wagons improved, the railways could discharge the burden.¹

¹ This was subject to the need for individual examination of the west coast ports. In the event, railway capacity proved itself indeed highly elastic but much less so than these prophecies. In 1944 the railways were strained almost to breaking point with a goods ton mileage about fifty per cent. above pre-war.

It seems that any doubts by the Ministry of Transport were not strong enough to modify this general optimism. The Ministry's inspecting officers showed renewed anxiety about bottlenecks on specific lines at marshalling yards and junctions; but the railway companies did not share it.

The general sense of optimism about railway performance had many unfortunate results. When a severe strain on transport is expected, plans are obviously needed to keep all the main transport requirements and transport resources under continuous review. Machinery for allocating traffic between the different forms of transport is also necessary. All this in turn means that there must be machinery for assessing demands and also that the control over all forms of transport and of the main blocs of traffic must be effective. It would have been too much to expect in the last pre-war years and months coherent plans to handle all these problems. But they might at least have been studied systematically and persistently. Instead, on the outbreak of war the collection of the only good transport statistics—those for the railways—was suspended.

This optimism about the railways also meant that assumptions about war-time transport policy were accepted too easily. No one questioned the removal of coastal tramps from the coal trade. No one questioned the major premise that, in the interests of petrol economy, long-distance road transport must be reduced as much as possible. At the same time, the Ministry of Transport had considered that it would be impracticable to set up on the outbreak of war an effective organisation for mobilising and controlling road haulage vehicles: the control was left to the indirect sanction of petrol rationing. The control over canals was also to be loose. Only in coastwise shipping were the plans for control adequate to ensure that the vessels could be allocated to the uses where they were needed most.

As for the policy towards the railways themselves, it was considered sufficient to have a loose method of securing unified control. The general managers of the main railway groups, acting in committee,¹ would direct the co-ordinated operation of the railways as an instrument of the Government, subject to directives on policy framed by the Minister of Transport and transmitted to them through a Railway Control Officer.² Railway management was not carefully adjusted to the strains of war. As we have seen, when war broke out there was no detailed survey ready of the points on the railway system where congestion was likely to occur and where physical development would be necessary. Nor is there any evidence of a central review of the adequacy of the country's rolling-stock.³

¹ The Railway Executive Committee.

² Until March 1941 this officer was not a member of the Railway Executive Committee.

³ Apart from an investigation made into supplies of mineral wagons.

Thus inland transport went to war. The railways played their part effectively in military mobilisation and in civilian evacuation and for some time coped successfully with their other burdens. The burden of railway goods traffic quickly increased as long-distance traffic was diverted to the railways from the roads, canals and coastwise shipping. Road transport was restricted by petrol rationing, and traffic was diverted from canals and coastal liners mainly because their rates rose so much higher than those of the railways.¹ Of coastal tramps there was a severe shortage; many had been requisitioned for military service and many were engaged on the short sea routes or in carrying cargoes to France. For all these reasons, by the end of March 1940, the ton-mileage of freight carried by the railways was about thirty per cent. higher than at the beginning of the war.² Aided by big cuts in passenger services, by the requisitioning of privately owned wagons and by heavier loading of wagons and trains, the railways dealt with this traffic without much difficulty.

The only real trouble of the first war winter arose over the transport of coal to London and the south. Before the war, the railways had been confident that they could carry the coal normally taken down the east coast by coasters. But when a shortage of coastal tramps developed in this trade in the first few months of war, stocks at the public utility undertakings in the south dwindled alarmingly. This accentuated the effects of the very severe weather that came in January and February 1940. An acute coal crisis developed. The crisis was met mainly by improvisation. The Ministry of Shipping released some ships for the coal trade. Train-loads of coal were requisitioned wholesale *en route*. The choked colliery sidings were cleared by despatching train-loads made up from coal wagons all going to a single destination. For three weeks, all coal, and not just coal for public utilities and munitions, was given priority on the railways at the cost of serious delays to railway traffic of all other kinds. This might have been an occasion for some salutary heart-searching, not only about methods of coal distribution but also about transport³. Were the established practices of railway management adequate for the burdens of war? Could the railways be expected to deal with large emergency movements of traffic except with the co-operation of other forms of transport? The Ministry of Food had long since concluded that they could not; it had made its own arrangements with the owners of refrigerated motor vehicles to ensure the distribution of meat. But, in general, the warning was not greatly heeded.

¹ A subsidy to canal carriers did not come into effect until 1st June 1940.

² There are no official figures. This is taken from some estimates made in mid-1941 by economists in the War Cabinet secretariat.

³ These paragraphs about the railway crisis are subject to review after further research has been completed.

The first months of war provided a hard winter but none of the really stern tests of inland transport that had been contemplated before the war. There were no air raids and no lasting diversion of ships to the west coast. Nevertheless, by the summer of 1940, the railways were modifying their optimism. When port capacity came once more under urgent examination, they once again declared themselves capable of carrying diverted traffic from the west coast ports; but this time they added provisos which in fact nullified their conclusions. They could carry this traffic only if there were no heavy rushes of other business, troop movements, evacuation, etc.; only if there were no air raids and no abnormal weather; only if the traffic from the ports came forward with reasonable regularity . . . In September 1940, the air raids and the diversion of shipping to west coast ports arrived together. With them they brought the inevitable transport crisis.

The transport crisis was primarily a railway crisis which manifested itself in many ways. The two main signs were the delays in clearing the ports, which have been discussed earlier in this chapter, and the serious difficulties in supplying coal to south and south-east England. But the trouble could also be seen all over the railway system. Railway embargoes on the acceptance of traffic multiplied, especially on the Great Western Railway. The immediate symptom of the transport congestion was a shortage of empty railway wagons for loading, whether at the ports, the collieries or at the goods stations. When some lines became blocked nearly back to the terminals and it was impossible to get loaded wagons away the disease was clearly becoming chronic.

In the autumn of 1940 there was a real shortage of the necessary specialised equipment for some kinds of traffic. There were, as we saw, not enough 'bolster' wagons for the large steel cargoes that were being landed at the west coast.¹ 'Macaw' wagons for timber were insufficient and the provision of the necessary 'hopper' wagons had not kept pace with the enormous increase in the output of iron-ore in the Midlands. But these were special cases. The railways were asked to carry more steel and more iron-ore, but at the time of crisis they were carrying about sixteen per cent. less freight traffic (expressed in ton-miles) than they had carried without great difficulty in June and July 1940.² In part, this was itself a result of the railway congestion, but it is also probable that the total demands on the railways were actually smaller. Imports were falling sharply and air raids were hindering production. Even the average length of haul seems to have been less from September onwards than it was in July and August.

¹ See above, p. 253.

² These are the estimates made in mid-1941 by the economists of the War Cabinet secretariat.

The cause of the crisis was not, then, a sudden increase in freight traffic. Wagons were not really scarce; they were simply taking far longer to accomplish their journeys and to unload. Why was this? In the first place, wagons were spending more time at junctions, exchange points and marshalling yards, while on some routes progress along the track itself was slow. One major cause was the change in the flow of traffic. The diversion to the west coast ports was primarily responsible; as we saw, the total imports into the west coast ports were lower in the autumn of 1940 than in the spring, but a much higher percentage was travelling inland by rail to unfamiliar destinations.¹ This brought great pressure upon junctions such as Carlisle, Crewe, Rugby and Bletchley, upon the points of exchange between the four main-line systems and upon particular routes—those from north to south, west to east, and south-west to north-east. Other changes in the flow of traffic were superimposed upon those caused by the diversion of ships. When South Wales' coal export trade ceased, the coal had to be sent, instead, to the east. The G.W.R. route from South Wales to London, indeed, became notorious for its congestion. Imports landed at Bristol Channel ports, and coal from Welsh mines, struggled to get through the Severn Tunnel, and as they travelled east they met other competitors for railway facilities. The west of England was popular for evacuation and passenger traffic was therefore heavy; moreover, before the end of 1940, over ninety new government factories had been established along the G.W.R. And at various points traffic from the north was trying to cross to the south.

Congestion was made worse by the inevitable results of air raids and air-raid precautions. There were instructions that, when air-raid warnings were given, trains must reduce their speed considerably. This, combined with damage on the lines, meant that planned movement on the railways broke down over wide areas, and the marshalling yards became still further congested through lack of engines or crews, or both. Efficiency in the marshalling yards suffered considerably through air-raid warnings. Good lighting was necessary and the blackout had already created difficulties, but when the approach of bombers was signalled, all external lights had to be extinguished. Actual damage of course made things worse. In Birmingham, for example, the G.W.R. and L.M.S. junctions were attacked twelve times during October and November 1940, and largely because of this, the average number of wagons exchanged daily between the two yards dropped from 950 to 680.

London was worst affected by the air raids. On 7th September 1940, for example, four out of six principal London goods depots

¹ See above, p. 253.

belonging to the G.W.R. had to be closed for over three weeks; on 29th September the number of wagons exchanged between the L.M.S. and the Southern Railway in London was less than a quarter of what it had been six months earlier. Since London is the centre of the British railway system, the damage infected traffic movements throughout the country. The most alarming direct effect of London railway conditions was the drop in coal deliveries to the south. In September, when sea-borne supplies fell heavily, rail deliveries of coal to London were only fifty-two per cent. of the monthly rate in the summer and fifty-six per cent. of the rate of the previous winter. A vast mass of loaded coal wagons began to pile up in marshalling yards and exchange sidings.

Many of the results of air attack were unavoidable; they would have been much worse if it had not been for the skill of the railway engineers in repairing damage and improvising resources. But there were additional difficulties besides air raids. The congestion of wagons in yards and sidings grew thicker as there accumulated another mass of loaded wagons of all kinds which no one knew what to do with. In South Wales, for example, some 10,000 wagons loaded with coal for France before the Franco-German armistice were still standing there in November 1940. In the ports, wagons stood loaded with imports which the importing departments could not or would not dispose of; for other miscellaneous imports the consignee could not be identified. Again, other loaded wagons stood about because bombing of consignees' premises delayed or prevented delivery to them. In many other cases, traffic was despatched at a rate far in excess of the ability of the consignee to accept.¹

The confusion was made unnecessarily worse by the inadequacy of the arrangements for pooling railway wagons belonging to or requisitioned by the four main-line companies. When one company received from another wagons in excess of the number it had itself forwarded, it was still, in war time, supposed to return them empty to the owning company. But the principle of ownership determining the balance of wagons between the groups was highly unsatisfactory in war when changes in the flow and volume of traffic had entirely altered the requirements of the different groups. There was indeed no provision for an equitable distribution of wagons between companies according to their relative needs.

Many causes, then, contributed to the railway crisis of 1940-41. It would be difficult, even after much further research, to segregate them carefully and trace the effects first of one cause and then of

¹ One investigating committee reported: 'Wagons loaded by fifties or hundreds, are sent to consignees whose daily capacity for unloading is no more than three or four per day.' The Ministry of Food—always far ahead of other departments in transport matters—was not guilty of the sins described in this paragraph.

another; one weakness disclosed another, for the railway system is a highly sensitive whole and an infection in one part rapidly spreads through all the arteries and organs. And, if it is difficult to diagnose the disease, it is not much easier to measure the wastage that it caused. One cannot trace the innumerable dislocations which must have been caused by traffic delays and embargoes on the acceptance of traffic, nor can one measure the precise effects of transport difficulties on the turn-round of ships in the ports or on coal production and distribution.

Certainly, by the middle of October 1940, there was great anxiety about the effects of railway congestion and a general demand for action to cure it. The crisis lasted throughout the winter and early spring. Then recovery began. By the end of April 1941 the number of wagons standing under load for more than forty-eight hours had dropped from well over 90,000 in October, November and December to below 60,000. In the summer, the volume of freight traffic carried was returning to the level of the spring of 1940.

Clearly, these improvements in so short a period cannot have been achieved by fundamental reorganisation of transport resources. They were partly the result of longer daylight and the absence of air raids. Improvements of organisation also made their contribution. The improvements in the ports and in the ministries responsible for imports have been already described. And in January 1941, the Ministry of Supply at long last established a transport division. From February onwards transport officers of the Ministries of Food and Supply were stationed in the ports and were responsible for knowing where the imports were to be sent and whether the consignees had the facilities for unloading them. This helped to thin out the accumulation in yards and sidings of wagons loaded with unclaimed goods. Decisions by the shipping authorities also brought relief to the railways. More ships were sent to the east coast and there was a constant struggle so to arrange loading in ports abroad as to ease the strain on British transport.

Congestion at yards, sidings and terminals was also loosened by hastily improvised and skilfully administered measures to get rid of the vast mass of loaded coal wagons. In October 1940, the coal congestion was beginning to extend the whole way back to the pits, where many loaded wagons were blocked because it was impossible to get them through to the south. On 9th October the War Cabinet put the matter in the hands of the Lord President, who formed a special committee for this purpose. Under this committee's aegis, the Mines Department established a Standing Diversion Committee whose duty it was to find an alternative disposal for all the coal which, for one reason or another, could not be delivered to consignees in the southern towns served by lines running through London.

The committee did its work well, keeping track of all this undelivered coal and sending it to other consignees or else to the nearest government coal dump. There still remained the problem of getting coal across the Thames, where the rail-crossings were being fiercely attacked. The Committee initiated the preparation of special sites on the northern periphery of London where whole train-loads of coal could be unloaded and then transported by rail and road. But these sites and sidings were not ready until the transport crisis was really over; temporary arrangements were necessary to increase the supply of sea-borne coal to ports on the south bank of the Thames and to take rail-borne coal by barge across the river from the north bank. Other measures were taken to safeguard the coal supplies of southern England between the Thames and the Severn. Areas, which special transport difficulties were making into black spots, were dealt with by specially controlled traffic;¹ train-loads of wagons all going to a single destination were organised as in the previous winter.

The same inefficient organisation of railway wagons as afflicted coal distribution had plagued most other goods traffic. Perhaps the worst trouble had arisen over the heat-insulated wagons for which an unprecedented demand had arisen when large quantities of frozen meat had to be moved from the west coast ports to cold stores in or near London. A departmental inquiry was held and a scheme produced which brought all insulated vehicles, road and rail, under a central operating committee working from Amersham. After the middle of December 1940 when the scheme started, transport of meat was never again held up for lack of vehicles. In March 1941, the same pooling principle replaced the old arrangements which distributed wagons between the main-line companies according to their ownership. An Inter-Company Freight Rolling Stock Control was set up at Amersham to create a pool of wagons which could be distributed between the companies according to their actual needs and the conditions prevailing from day to day.

There were other measures to ease the wagon position. The shortage of specialised wagons was slowly overcome by improvisation and new building. Departments were persuaded to reduce the number of wagons they used, for example, for storing explosives. Finally, there was a general campaign for quicker unloading of wagons at the receiving end. It was at last realised that, just as in the 1914-18 war, it was useless to rely on stricter demurrage penalties to ensure speedy turn-round, since traders often preferred to pay the fines rather than unload quickly, and it was always difficult to collect outstanding penalties. More effective was the pressure for quicker unloading which was constantly exerted from the autumn of 1940 through

¹ This controlled traffic was never more than ten per cent. of the total coal traffic.

government departments concerned with the movement of large quantities of bulk commodities.

This wide variety of expedients was designed to improve the carrying capacity of the railways. But the crisis of 1940-41 decisively refuted the old pre-war assumption that the railways would be able to cope with almost any demands that war would make upon them. Help was badly needed from all other forms of transport, from the road hauliers, the canals and the coastal ships. Without the coastal ships the transport crisis would have been incomparably worse. At the time of the crisis, the railways alone could not have handled that additional traffic of coal, sulphate of ammonia, sugar-beet and scrap-iron, which the coasters carried. While the coasters played a notable part in relieving the railways, road transport and canals did not. When the crisis broke, road transport was not sufficiently organised to meet it. Local road transport pools were set up in the west coast ports, but local resources were not enough and in the absence of proper control it proved impossible in some areas to obtain from other areas the fleets of vehicles needed for urgent port clearance. Nor was the canal position much more satisfactory; matters had drifted and the canals were suffering from a shortage of craft and of labour.

The transport crisis of 1940-41 was overcome, then, not by major reorganisation or an integration of transport resources, but by 'a variety of expedients and some narrow squeaks'.¹ Some particular transport problems such as the clearance of the west coast ports had been solved partly by the grant of railway priorities. But this only created new problems. Traffic outside the limited priority class was crowded out and embargoes on the acceptance of traffic became more frequent.

It was in fact abundantly clear that war would demand an immense transport effort which, as yet, the transport services were neither equipped nor organised to sustain. There emerged from the troubles of this winter four main lessons. First, the physical capacity of the railways was inadequate. Secondly, government control over the railways was inadequate. Thirdly, the controls over road transport and canals must be strengthened. Fourthly, a new, broad approach to inland transport was needed; demands must be matched against resources and traffic so allocated that the utmost use was made of the resources.

Following the winter crisis, some action was taken under each of these four heads. To consider first the problem of railway capacity: the need for enlarging it had been to some extent recognised in the first months of the war. Under pressure from the Ministry of Transport, the Railway Executive Committee had brought forward schemes for

¹ The words were used about coal distribution by the Lord President.

new works of an insurance character or for works on heavily burdened routes. By May 1940, about £1 million of work had been authorised and by March 1941 another £1 million. But little of this work was ready in time to meet the 1940-41 crisis and at the end of 1940 it was admitted that the railways had looked ahead in 'small and unrealistic terms'. In November 1940, the chairman of the Railway Executive Committee presented a scheme for new works on main routes which would cost £10 millions and take two years to complete. This scheme was in the end scaled down to a £5 million scheme in which most of the work could be completed within one year.

In the spring of 1941, there was widespread dissatisfaction with the control over the different forms of transport. Not least were the complaints about the railways. The original financial agreement with them had been intended to buttress the control exercised through the Railway Executive Committee, by providing an incentive to efficiency.¹ But the combined effect was not impressive. In the spring of 1941, the Ministry of Food was loud in its complaints against the railways; they had defied instructions to give the Ministry special rates and had displayed in other ways—so the Ministry complained—a purely commercial outlook wholly inappropriate in war time. The Minister of Transport admitted to the Lord President's Committee that the co-ordination and unity of effort secured by the existing management was insufficient. In the end, revision of the financial agreement² was combined with the appointment of a Controller of Railways in the Ministry of Transport who would also take over the Chairmanship of the Railway Executive Committee. The new Controller took office in August 1941.

Reorganisation of control on the roads and canals came more slowly. The third winter of the war was almost gone before there was any effective scheme for controlling road haulage. From May 1940 onwards successive committees worked to prepare one; but opposition came from almost every quarter in turn and a first control was not established until February 1942. It proved unsuccessful. Canal control, however, was strengthened in the summer of 1941 by the appointment of regional committees. Since the transport-using departments were represented on these committees, there was some assurance that the canals would serve suitable traffic.

Meanwhile the Ministry of Transport had begun to appreciate the need for planning transport resources in advance and planning them as a whole. In April 1941, it established a Central Transport Committee composed of persons representing the major interests in traffic movements—the heads of the railways, docks, road transport and canal divisions of the Ministry of Transport and the chairman of

¹ See Chapter VI above, p. 162.

² See Chapter XII below, p. 341.

the Railway Executive Committee.¹ Its task was to consider large transport requirements, to co-ordinate them and allocate them between the various forms of transport, and, where necessary, to make plans for the development of transport resources. In May 1941, the formation of the Ministry of War Transport promised better co-ordination between shipping, port and transit facilities.

The immediate fruit of this new approach was seen in the summer of 1941, when for the first time a serious attempt was made to forecast the load on the railways in the following winter. The calculation that emerged—that the volume of freight traffic originating on the railways would be nine per cent. greater in 1941-42 than it had been during 1940-41—was necessarily rough and ready. But it supplied a basis for making claims for the necessary priority for locomotives, and it also encouraged plans for transport economies—for rationalisation of distribution and reductions in passenger traffic. These plans and transport conditions in 1941-42 will be described more fully in Chapter XVI below. When winter came, the new Ministry of War Transport had not had time to produce drastic or sufficient changes in the organisation of inland transport. But it had at least made a beginning.

¹ The Chairman of the C.T.C. was a high official of the Ministry of Transport.

CHAPTER XI

MANPOWER

(i)

Dimensions of the Task

IN 1940 the world wondered whether Britain could bear almost the whole burden of the fight against the Axis or whether she would collapse beneath it. Once the immediate threat of invasion had subsided, there seemed two main sources of weakness. Could her ships bring—and her ports receive—the food and raw materials from abroad without which her war-making capacity would be reduced to a pitiable level? If she got these supplies, could she ever mobilise her manpower to compete with the vast resources of the enemy?

The summer disasters had indeed brought down the balance of manpower in favour of the Axis. Crude comparisons of populations were, of course, highly misleading. If all the heads of the British Empire were counted, the balance was still weighted in favour of Britain; the 400 millions and more in India and the Colonies were decisive. But the economic and social structure of the Colonial Dependencies could not sustain a ponderous mobilisation and the productive effort of India was as yet barely in its initial stages. A more realistic comparison would emphasise rather the combined strength of Britain and the Dominions, pitted against the Europe over which Germany sprawled—some 75 millions against more than 200 millions. This comparison also was very crude. For example, output per head in many of the agricultural communities of Europe was notoriously low. On the other hand, the United Kingdom was separated from the Dominions by thousands of miles of ocean. For these and similar reasons, there could be little statistical refinement in the comparisons of strength. One thing, however, seemed clear. Provided the Germans were sufficiently ruthless, their war effort could not fail for lack of labour. But how could Britain ever hope to arm, and place in the field, forces large enough to conquer? In fact it became clear during 1941 that Britain and the Commonwealth would not bear the burden alone. In June, when the Germans attacked Soviet Russia, and in December, when the Japanese attacked Pearl Harbour, the balance of manpower and industrial potential came down in favour of the Allies.

In 1940, such mighty alliances seemed very remote. The struggle, first for survival and then for victory, depended primarily on the

efforts of the British themselves. If the other problems of production such as machine tools and raw materials were solved, every brain and every pair of hands which could fight or work would be needed. The manpower demands would be immense. And if under such conditions confusion was not to achieve its masterpiece, manpower requirements and supplies must be carefully measured and balanced against each other. The balance sheet must then be made effective by deliberate and detailed allocation of the available supplies.

In May 1940, the new Minister of Labour had shown himself fully aware of the necessity for this forward planning. Even before the new Emergency Powers Act had put into his hands the instrument of industrial conscription, he had demanded and had been given full responsibility for the control of the total labour supply. But he could not by himself determine all the purposes that the nation's manpower must serve; while he strengthened his department by setting up inside it a Labour Supply Board to study requirements of manpower against available supplies,¹ he expected the new Production Council² to plan programmes according to the materials and labour available. The War Cabinet imposed upon the Production Council the two tasks—among others—of seeing that the manpower budget balanced in the short run and of working out a long-term budget.³

However, the establishment of mechanism for the measurement of demands and the allocation of supplies presupposes some degree of certainty about the prospects of existence for some twelve months ahead. In the summer of 1940, such certainty did not exist. The Government must think not in terms of months but of weeks and days. The need for aircraft and weapons to drive enemy invaders from the skies and coasts of Britain took precedence over all else. Demands were accordingly formulated in terms not of programmes but of priorities. The War Cabinet's directive in May that a general priority should be given to weapons which could be used against the enemy within three months, and that every possible step should be taken to hasten the production of anti-aircraft equipment, bombers and fighters, was translated by the Production Council into a more precise Priority of Production Direction. Three priority classes were defined:

Class 1(a): Four groups of products and their components⁴ which were to have overriding priority.

¹ To be composed of a new Director of Labour Supply, plus three or four persons of 'practical experience' drawn from the ranks of employers and trade unions.

² See Chapter VIII, p. 217.

³ The Production Council, however, had no jurisdiction over the demands of the Services for recruits.

⁴ i.e. fighter, bomber and trainer aircraft and their instruments, A.A. equipment, small arms and S.A. ammunition, and bombs.

Class 1(b): Some five groups of products and their components¹ which were to have the first claims after 1(a).

Class 2: This class contained articles for the vital needs of the Services which could be completed by 1st September 1940, plus work specifically certified by the Central Priority Department.

Production of Class 2 goods was not to be disturbed except as a last resort and then only after consultation with the Ministry concerned.

By any long-term calculations, strict adherence to such a rigid priority system must make the orderly and flexible progress of war production well-nigh impossible. In the summer months of 1940, long-term considerations were not the most weighty; but even then it was clear that the Priority of Production Direction could only be a temporary expedient. So long as the Direction remained the basis for the formulation of labour requirements, concentrating attention on the demands of only a limited section of war industry, it obscured the question which sooner or later had to be faced and answered: what were the total demands on British manpower and what resources were there to meet these demands?

This question began to be asked as soon as the future began to lengthen.² In the middle of August, the Minister of Labour sent a paper to the Production Council emphasising the need for revised estimates of the manpower necessary to fulfil the production programmes of the Services. The figures in the Humbert Wolfe report³ were now completely out of date; moreover, experience had proved that they were greatly inflated.⁴ Without some new estimates, were they never so rough an approximation, the Ministry of Labour was working in the dark. The Production Council did its best to shed light; indeed, its conclusions on Mr. Bevin's proposals marked the genesis of systematic manpower planning in Great Britain. Orderly planning of production, the Council declared, would be possible only if the production departments were informed at an early date of the requirements of the fighting services for equipment and of the merchant navy for tonnage. These requirements must then be translated into terms of labour.⁵ Similar arithmetic must be produced by the Board of Trade for exports and essential home trade. When all these demands, plus the demands for fighting manpower, had been added

¹ Anti-tank weapons, field artillery, tanks, machine-guns, ammunition.

² See Chapter VIII.

³ See Chapter V, Section (ii), p. 141.

⁴ e.g. the manpower expansion required in the aircraft and motor vehicle industry between June 1939 and June 1940 had been estimated at 117 per cent. The expansion actually achieved was something over 22 per cent. 'And yet,' said the Minister of Labour, 'the programme up to date has, I understand, been substantially achieved.'

⁵ And into terms of materials.

up, their sum total must be compared with available supplies. Here was a new and urgent task, the first comprehensive investigation of the nation's manpower demands and resources. It was entrusted to an inter-departmental Manpower Requirements Committee with Sir William Beveridge as chairman. The conclusions of the Manpower Requirements Committee were as follows:

Thousands of men and women

	Services and Civil Defence	Munitions ¹	Total
Existing strengths (Aug. 1940)	2,977 ²	3,535 ³	6,512
Required increase ⁴ (for Forces, Sept. 1940 to end Dec. 1941; for munitions, Sept. 1940 to end Aug. 1941)	1,825	1,465 ⁵	3,290
Total strengths (Forces at end Dec. 1941: Munitions at end Aug. 1941)	4,802	5,000	9,802

The logic of this arithmetic was inescapable. It meant a 'famine of men'. By the end of 1941, over 8½ million men would be required in the Forces and munitions industries where there had been scarcely more than 3 million men in June 1939. This calculation assumed however that the proportion of women in the munitions industries would remain as at August 1940—at about twenty per cent. The assumption could not be allowed to stand. The famine of men would breed a hunger for women. Accordingly, the Manpower Requirements Committee concluded that fifty-eight per cent. of the net increase in the munitions labour force up to August 1941 must be provided by women.⁶ When the requirements were thus divided by men and women they emerged as follows:

Thousands

	Increase over Aug. 1940			Resulting strengths ⁷		
	Men	Women	Total	Men	Women	Total
Services and Civil Defence	1,741	84	1,825	4,611	191	4,802
Munitions	606	859	1,465	3,399	1,601	5,000
TOTAL	2,347	943	3,290	8,010	1,792	9,802

¹ i.e. engineering and allied industries, fitting and other shipbuilding, metal manufactures and chemicals.

² It should be noted that this figure includes Civil Defence and is not therefore comparable with the figure for the armed forces in Table 2 (b) of the statistical summary.

³ Including clerical and administrative workers. These figures are not comparable with the figures in Table 2 (b) of the statistical summary.

⁴ To supply the requirements of Forces at a given strength by December 1941 the munitions industries needed to have their labour available by August 1941.

⁵ This allowed for an extra 385,000 workers who would be needed if there was heavy land fighting in 1941. In addition to this net increase of workers in the munitions industries another 100,000 workers in the industries would need to be transferred from home and export to government work.

⁶ By August 1941, thirty-two per cent. of the munitions workers would be women.

⁷ Forces at December 1941, munitions industries at August 1941.

How could these demands be met? The famine of men came first and its first element was the appetite of the armed forces. That appetite, though fierce, was discriminating; the Forces would only take men between eighteen and forty years of age. Of these, there were approximately eight millions; but nearly four millions were in reserved occupations and nearly half a million—the under-twenties—were still excluded from the call-up. Sooner or later this exclusion would have to be cancelled. And the net of reservation must be immediately loosened if the Forces were to obtain the recruits they needed. The withdrawals for the Forces proposed by the Manpower Requirements Committee ranged from twelve per cent. in the mining industry to fifty per cent. in services such as hotels, laundries and distribution.¹ From the munitions industries the estimated withdrawals amounted to eighteen per cent.

But how could the munitions industries give up eighteen per cent. of their men when they were required by August 1941 to add over 600,000 men to their total labour force? The answer was that they must take in many more new men—older men, youths below military age or men physically unfit for military service—than the number they would surrender to the Forces. In the general post recommended by the Manpower Requirements Committee, specific estimates were made of the percentage contributions which various industries could make to the men needed for the munitions labour force.² Thus, while the railways and coal-mining could make no contribution at all, an industry such as distribution must yield up ten per cent of its men to munitions as well as its fifty per cent. to the Forces. Each particular percentage might perhaps be subject to argument; but the Committee stood fast by the total. But withdrawals of this size could not be made unless every industry sustaining the life of the community replaced men by women in every job that women could do and for which they could be secured. In addition to the 940,000 extra women needed for the Services and Civil Defence and the munitions industries, non-munitions industries and services would want another 750,000 or so women. The total of women to be recruited—not counting the transfers from less essential to more essential occupations—was 1,690,000.

Was so great an army of women available? At first sight the answer seemed prompt and encouraging. There were 17½ million women and girls of the ages fourteen to sixty-four and only 6½ million of them

¹ i.e. total withdrawals from June 1939 to August 1941 expressed as a percentage of the June 1939 labour force. The percentages were suggested after considering e.g. the importance of the industry in war, how far women could replace men, the proportion of men of military age, unemployment in June 1939, the contraction since June 1939, the experience of the 1914-18 war.

² See Note ¹ on previous page.

gainfully occupied.¹ But of the 'unoccupied,' only 2½ millions were single or widowed, and many of those would have small children or elderly relations whom they could not abandon. The demands for women could not therefore be met without drawing largely on married women. They might well be less readily available than in 1914-18, for the competing claims upon them were this time more intense. A larger proportion of them had husbands in reserved occupations, eating and sleeping at home, while many had to cope with the problems of evacuation or civil defence or some other toilsome war duty. In the statistical tables, the women were available; but to mobilise them would demand good organisation—a wisely controlled location of war work, a vigorous administrative effort and welfare arrangements on a scale hitherto unknown in most industries.

So far, the calculations had been about total numbers; but the calculators were well aware that the totals could only be made up if particular persons in their millions were put into the particular jobs which they were fit to do. In the munitions industries, the estimate of total requirements would never be matched by achievement unless sufficient persons were found for those particular jobs that were called 'skilled'. The committee estimated that 250,000 additional skilled workers were required in the engineering and allied industries. Unless they were supplied, or unless devices could be found for making do with a smaller number, these industries would not be able to absorb the 700,000 new workers² who made up their total labour requirement for the period. There were moreover other important demands, for example by the fighting services, upon the supply of skilled labour. The supply could be enlarged by training; but training took time. There was an immediate shortage which could only be overcome by arrangements that would enable three skilled men, with suitable assistance, to do the work hitherto done by four skilled men. So great a dilution was easier to aim at than to achieve. There was, for example, the special problem of skilled tool-makers and machine-setters. The number available could not be put above 90,000 nor the number required below 130,000.³ Here in truth was the 'hard core of the manpower problem'. It was a problem that dilution could not solve. The solution, therefore, must be sought by

¹ This figure is not necessarily comparable with other figures in this book for the number of 'gainfully occupied' women. In this case, it includes private domestic servants and women aged sixty to sixty-four, neither of whom are included in the normal Ministry of Labour figures.

² This figure is for demands on the assumption that there would be no large-scale land fighting in 1941.

³ Use of a larger proportion of semi-skilled and unskilled labour depended upon a greater use of machines, and therefore of people making tools and setting machines. The development of design of munitions also involved a high proportion of tool-making.

a ruthless scaling down of demand. This might be achieved through a combination of measures—by reducing variations of design to the minimum, by persuading firms to co-operate with each other in pooling their key men, by an intensive programme of up-grading and training.¹

The Manpower Requirements Committee had provided for the makers of policy and plans a background far more comprehensive than anything hitherto available to them. Its work became a valuable influence pervading government thought and action. For it had foreseen and attempted to measure the impending famine of men and hunger for women, and had at the same time shown the possibility of satisfying this appetite and achieving an immense war effort. It had concluded that the existing programmes of the Service and supply departments were from the manpower angle quantitatively possible. If this were true, there was no longer a valid case for refusing to meet those genuine claims on manpower that were not covered by priorities 1(a), 1(b) and 2. Henceforward, the priority system gradually faded until it became in the end merely a subordinate device for modifying or controlling the order in which particular demands were met.

These surveys, however, were not action nor even the starting point for action. They did not become, like the manpower budgets of after years, the basis of government planning for twelve months ahead. Indeed, their very timing made this impossible; the second report was not ready before mid-December 1940, and the estimates for demand and supply in the munitions industries were for the period ending in the next August. And how could the immense movements of men and women be achieved by then, when there was as yet no machinery for identifying workers and then for transferring them?² So the second and major report of the Manpower Requirements Committee did not even go to the War Cabinet. Nor were its figures ever set before the ministries as the target of their endeavour.

There were good reasons why this was so. The famine of men and the hunger for women were approaching but had not yet arrived. It was certainly salutary for the War Cabinet and the departments to adjust their minds to its impending advent and to consider the policies with which they must go forward to meet it. But there were other decisions to be made as well, decisions that might invalidate the basic statistical premises of the Manpower Requirements Committee. That body had accepted without question the official departmental

¹ See section (ii) of this chapter.

² i.e. no machinery for workers as a whole. There existed the rough and ready methods of the Labour Supply Inspectors for withdrawing skilled workers from non-priority employment.

estimates of Service strengths and war production. Should not all claimant departments be required to criticise these estimates and recast them?

There were, to begin with, the estimates of the men required in the fighting services. Most important of all were the claims of the Army; for while the Navy and the Air Force demanded their hundreds of thousands, the Army demanded its millions. 'At the root of all questions of manpower', said Mr. Churchill, 'lies the size of the Army.'¹ It was demanding a million new recruits between September 1940 and October 1941 with another million and a half to follow in the next twelve months. There were suggestions that it might demand still more. Such heavy claims might prove to be a good deal more than the industrial structure of the country could support. As early as September 1940, the Minister of Labour expressed his doubts at a meeting of the War Cabinet. In December, the Prime Minister informed the War Cabinet that he had invited the War Office to submit proposals for a more economical use of the manpower already serving in the Army. He wanted an Army with stronger teeth and a smaller tail. Such a refashioning of its proportions would make it a better fighting instrument and would also curtail its claims upon the nation's manpower.

The negotiations between the Prime Minister and the War Office extended up to March 1941 when a Directive on Army Scales was issued. It imposed a 'ceiling' on Army strength. This did not mean any change in the proposed number of divisions. In September 1940 the War Office had not been sure that more than fifty divisions would be equipped to form a field force by the spring of 1942, but the Secretary of State for War was proposing to base his recruiting plans on a more optimistic basis so that if it were found possible to equip fifty-five divisions the supply of trained men would be adequate. Of the fifty-five divisions, thirty-four would be United Kingdom troops and the rest from overseas. During the winter this figure was altered to fifty-seven divisions, thirty-six of them manned from the United Kingdom. The doubts and obscurities about Army manpower arose not over the number of divisions but over the conception of divisional strength. The War Cabinet had not realised, when it approved a field Army of fifty-five divisions, that a division as contemplated by the War Office with its share of corps, army, G.H.Q. and line of communications formations would require 42,000 men, exclusive of all training establishments and of all garrisons, depots, or troops not included in the field Army.

Mr. Churchill's directive showed what this meant. In the home forces Army there were thirty-two divisions,² some of them still in

¹ H. of C. Deb., Vol. 368, Col. 265 (22nd January 1941).

² The other four British divisions were abroad.

process of formation. These divisions, plus various independent brigades and battalions, accounted for 735,000 men in actual tactical formations at home. But the total ration strength of the Army at home was 1,800,000 men. That left over a million men 'to be explained as corps, army and G.H.Q. troops, and A.D.G.B.,¹ or as training establishments, depots, etc., and as part of the rearward services of the forces overseas'. Here was the Army's capital fund of manpower. It would be replenished every year by the inflow of young men reaching call-up age; but it would not be further increased at the expense of the industrial labour force unless or until invasion or heavy casualties overseas made new provision essential.

It is upon this pool of 1,064,500 [Mr. Churchill declared] that the Army must live . . . In other words, the Army can rely on being kept up to something like their present figure of about two million British and they will be judged by the effective fighting use they make of it.²

'About two million' was in fact defined as 2,195,000 and later in 1941 the ceiling was raised by another 158,000.

This decision was a landmark of manpower history. The Army—the largest single claimant on manpower—had been set bounds which it might not pass. The bounds had been fixed in relation not merely to strategic necessities and desirabilities, but also to manpower resources as a whole and to the production of equipment. Moreover, the urge to husband well its resources had been implanted in the Army.

Fixing the Army ceiling did not, of course, end the troubles of the Military Recruitment Department of the Ministry of Labour. The strength of the Army had still to be brought up to the ceiling and thereafter had to be kept there. With normal wastage at the rate of 55,000 men a quarter, even when casualties were still light, this was no easy task. Despite what the Prime Minister had written, the task could not be mastered by drawing upon the regular inflow of men reaching call-up age. As the Minister of Labour had foreseen in the previous September, the demands of the Army had to be met largely from men hitherto reserved in industry.³ The problems of the timing of Army intakes—how many men should go in one quarter and how many in another—were perpetually thorny. The Minister of Labour recommended to the War Cabinet that the rate of calling up should be adjusted to the rate of equipment. This point, though

¹ i.e. Air Defence of Great Britain.

² The conclusion was interesting. 'These considerations', wrote Mr. Churchill, 'make it impossible for the Army except in resisting invasion to play a primary role in the defeat of the enemy. That task can only be done by the staying power of the Navy and above all by the effect of air predominance.' The directive did not look beyond 1942.

³ The modifications of the Schedule of Reserved Occupations will be considered in Section (ii).

never specifically approved by the War Cabinet,¹ was apparently accepted.² In fact, the limiting factor to calling up men to the Services seems to have been not the supplies of equipment, but the number of men who could be made available at any particular moment. This in turn depended upon the time-table for the release of men from industry through modifications in the Schedule of Reserved Occupations, upon whether older men could decently be called up before substantial numbers of younger men had been dereserved and upon whether the eighteen and nineteen year olds³ should be called up.

It was very difficult to achieve the Army ceiling. New demands—replacements of battle casualties in the Middle East, aerodrome defence, fire-watching at the western ports—were coming in fast. And the Army had accepted the ceiling on its male strength on the condition that it obtained large numbers of women for the A.T.S. Moreover, the demands of the other Services for men and women, though smaller, were no less urgent than the Army's. A committee of ministers which was set up by the War Cabinet under the Lord President's chairmanship in July 1941 added up the total demands of the Services during the next twelve months to 720,000 men and 270,000 women.⁴ There would be the greatest difficulties in meeting such demands; indeed the whole manpower position must be examined anew. The famine seemed to have arrived.

We shall return to the new manpower review. In the armed forces, however, no less than in industry, the demand was not merely for crude numbers but also for skill. In a war far more highly mechanised than any of its predecessors it was not enough to produce the machines of war. They had also to be continuously maintained in action. Here indeed was the top priority for skilled men. The machinery of registration for military service had made elaborate provision for supplying them to the Forces and up to the spring of 1941 the supply had been sufficient. Thereafter, new arrangements became necessary for matching supply and demand. In June, the Minister of Labour appointed a committee to inquire into the use and training of skilled men in the Services and the Service demands for such men up to

¹ The War Office had by then been asked to submit its proposals for a more economical use of manpower and consideration of the Minister of Labour's paper had been deferred.

² See for example statement by Mr. Bevin, H. of C. Deb., Vol. 368, Col. 91 (21st January 1941). 'In calling up the numbers now required it has been arranged that this is to keep step with the supply of equipment.'

³ During the passage of the National Service (Armed Forces) Act a pledge had been given that men under twenty would be among the last classes to be called. By January 1941, when men of thirty-six had been called up, the Minister of Labour felt the pledge had been fulfilled. The War Cabinet then agreed to the call-up of the nineteen year olds. In November 1941 the War Cabinet agreed to call up men at 18½.

⁴ These figures excluded Civil Defence, replacement of battle casualties and the W.R.N.S.

March 1942.¹ The committee, while praising the Services for the economies they were practising, found new ones to recommend. As a sequel to the report, Service demands for skilled men during the period were scaled down from 26,000 to 8,660, of whom over half had already been supplied. Even so, to remove from industry a further 4,000 skilled workers was no easy task.²

It is now time to consider the demands that war industry was making on the national fund of manpower. Once again, they did not develop according to the forecasts of the Manpower Requirements Committee. The Army ceiling, for example, changed the industrial programmes of the Ministry of Supply. But in any case, when the Manpower Requirements Committee had accepted the existing programmes of the supply departments and their translation into a manpower equivalent, they were on a very shaky basis of fact.³ The Ministry of Supply could produce 'labour certificates' for its main products, but the Admiralty could produce no definite figures at all and the Ministry of Aircraft Production at this time never intended its programmes to bear too close a relationship with reality. In the view of the Minister, aircraft programmes were 'goals to strive for'. They were therefore always set higher than the possibilities.⁴

Even had all the labour requirements been statistically irreproachable estimates related to realistic programmes, they would have overstated the immediate demand for labour. For that was largely governed by other factors, such as the extent and growth of factory capacity and the supply of materials and machine tools.⁵ Late in 1940 inquiries into these matters were initiated contemporaneously with the manpower inquiry. The results were intimidating. If they had been compared—as they should have been—with the reports of the Manpower Requirements Committee, they would have made it clear that labour was not yet the fundamental shortage in British war industry. Industrial facilities of various kinds had to be provided before the potential capacity of munitions production to absorb labour could develop its full strength. To pick out a few examples: until the middle of 1941 the machine-tool position was acute and certain specialist tools remained scarce for some time afterwards; throughout 1941 the supply of fabricated alloys was a matter of grave concern to the

¹ Sir W. Beveridge was chairman. The main report of the committee was in two parts. Part I was completed in October 1941 and later published as *Second Report of the Committee on Skilled Men in the Services*. Cmd. 6339, February 1942. Part II contained the confidential figures of demand and was not published.

² The men were found from volunteers.

³ These questions are more fully discussed in *British War Production*, pp. 145-152 and 218-220.

⁴ The M.A.P. demands for labour were based on floor space—the only factor of production that was then in plentiful supply.

⁵ See *British War Production*, Chapter IV, Section 6 and Chapter V, pp. 201-207.

Ministry of Aircraft Production and for some fabricated items—first extrusions and then castings—the shortages were really acute; the steel position was generally difficult and drop forgings and alloy steel—especially armour plate—were seriously scarce.

Yet, even had the land flowed with machine-tools, light alloys and steel, total demand for labour would not have developed on the scale anticipated by the Manpower Requirements Committee. For there had been no complete solution of the special problem of skilled labour. Here, the scale of demand was comparable to expectations; but the demand could not be met. This was a serious brake upon expansion. Existing factories could not work extra shifts nor employ fully the new extensions to their works. Nor could the great new aero engine factories and ordnance factories that were completed at the end of 1940 and the beginning of 1941 move quickly into full activity. 'It has been impossible in some cases,' said the Minister of Supply in January 1941, 'to secure the nucleus of skilled men without which an undertaking can neither begin work nor train the semi-skilled and unskilled labour.'¹

The situation improved gradually. In July 1941 the unfilled vacancies for skilled workers were 10,000, a serious shortage still, but less serious than six months earlier. Partial mastery of the skilled labour problem and the other production problems referred to above began at last to liberate the much-prophesied torrent of demand for labour of all kinds. Tightness in the market for unskilled labour was at first local. It was noticeable in the Birmingham and Sheffield areas as early as January 1941. By March, the President of the Board of Trade, introducing his proposals for the concentration of industry, told the House of Commons² that it would soon become nation-wide. By that time women were already wanted in large numbers for the new filling factories. By July, factories in many parts of the country were finding themselves undermanned on second shifts owing to labour shortages of all kinds—not only of skilled men but of strong and able-bodied unskilled men, of women to be trained for semi-skilled occupations, of women to be employed in unskilled capacities. The period of severe and general manpower stringency had arrived.

The labour demands of the munitions industries had grown more slowly than had been forecast, but were now rising to flood levels. At the same time, labour shortages in other scarcely less essential industries were leaping into prominence. Back in the winter of 1940-41 the building industry had been hard set to find the men it needed badly to fulfil its programmes. Men were wanted for iron-ore mining

¹ He instanced Hooton and Ellesmere Royal Ordnance Factories which had only eighteen skilled workers; forty-eight were urgently required and none had been recruited since the end of November.

² H. of C. Deb., Vol. 370, Col. 731 (27th March 1941).

where low pay and dirty conditions made it very difficult to secure them. The increased demand for agricultural labour, which had been expected in 1940, materialised in the spring of 1941, when the second ploughing campaign was under way. The great extension of production to meet near-siege conditions called for large numbers of unskilled able-bodied men for land drainage. And lastly, there dawned for the first time the suspicion that coal production might prove a dangerously weak spot in the British war economy.¹ When export markets had been lost after the fall of France, coal-miners had been allowed to go into the Forces and war factories. Nine months later, with war production well under way, a rate of coal output equal to that of July 1940 was needed. This meant 65,000 more coal-miners and in 1941 they proved very difficult to find.

The omens were everywhere the same. By July 1941 the general shortage of man and woman power had arrived. Alarmed at the demands of the Services, the War Cabinet then agreed that it was time for a new survey of total requirements and resources.² In the late summer, the Ministry of Labour made the following estimate of requirements up to June 1942 :³

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Armed forces and Civil Defence services	829,000	462,000	1,291,000
Munitions and other ⁴ industries (including clerical labour)	315,000	460,000	775,000
	<u>1,144,000</u>	<u>922,000</u>	<u>2,066,000</u>

These figures were formidable enough; but even before they were out the aircraft programme had been raised, increasing the munitions labour demand by another 100,000 men and women, and a supplementary programme was under discussion which might raise the labour requirements by yet another 200,000.

As before, the demands of the Services were the central problem. Under the call-up arrangements, 468,000 men were available compared with the required total of 829,000 men. This left 361,000 men to be found from the remaining 3½ million fit men of military age still in industry. The additional 315,000 men for vital industries must come from less important industries. The women for the Forces and for munitions must come from less essential industries and from the 'unoccupied'. The Ministry of Labour offered the following statistical

¹ The subject of coal will be dealt with more fully below. See Chapter XVI, Section (ii).

² See p. 290 above.

³ The figures for the Forces represented gross intake, i.e., the number required to achieve target figures to make good wastage except battle casualties above the 20,000 for whom the Army were already asking for replacement. The figures for munitions represented net intake, i.e., additional to labour required to replace men and women taken into the armed forces.

⁴ Mining and metal manufactures, timber production and land drainage.

picture of the general post that would be needed to meet the demands of the Services and war industry :

Thousands

Transfer from	Transfer to		
	Men		Women
	Services	Munitions	Services and Munitions
Munitions	199	50 ¹	50 ¹
Other industries and services	630	240	345
Others (retired, married women, domestic servants, etc.)	—	44	527
Discharges from the Services	—	50	—
Totals	829	384 ²	922

These figures caused great anxiety and concern. By now about eight million men and women, or a quarter of the total population of working age, were in the armed forces, civil defence and the munitions industries. All the reserves of labour which could be easily drawn upon had now been absorbed. Each successive entrenchment upon civilian industry and home life was becoming progressively more difficult. And here were demands for two million more men and women! By now there was a complete transformation of the atmosphere in which manpower problems were envisaged. Investigation was no longer a speculative exercise; it was the immediate prelude to action. The famine of men and women was no longer an unpleasant possibility which would emerge if and when the scarcities of machine-tools and raw materials were overcome. An acute shortage of manpower was part of the present, painfully afflicting every department which had any dealings with any industry or service.

The departments were pessimistic in their judgment of the new Manpower Survey. In their opinion the men needed by the armed forces could not be found in the time without very serious consequences, and it was impossible to satisfy the voracious appetite of war industry by June 1942. The economists in the War Cabinet Offices were more hopeful. They did not think the restrictions on civilian industry would be excessive nor the burden intolerable. They did not even consider that the new programme, if adequately administered, would prove to be the maximum of possible achievement.

Nevertheless, the position was already so tight that all claims on manpower must be scrutinised and demands and supplies carefully adjusted. The manpower survey of 1941 was in fact the starting point of the first real attempt at manpower budgeting. The Humbert

¹ It was proposed to transfer these people to government work from export and civilian work, etc., in the munitions industries.

² i.e., the net requirement of 315,000 plus the replacement of 69,000 of the men to be withdrawn for the Forces.

Wolfe Report¹ had not aspired to be a budget; it had simply tried to discover from an assembly of doubtful statistics what a given programme of equipment for the Forces involved. The 'Beveridge Reports' had covered a far wider field; they marked indeed a considerable advance in the technique of industrial manpower investigation. But the statistics were still far too unreliable and questions of timing still too uncertain to make the reports more than a very general guide to action. By the time the 1941 manpower survey was constructed, the supply of statistics was more plentiful and more accurate. These improved statistics became an instrument of action. Manpower surveys of the 1941 pattern did not merely state a problem; they indicated means of solving it. They provided the occasion for cutting down demands that departments could not fully justify and then for depressing civilian standards to satisfy Service and supply programmes, reduced though these were. All this required deliberate decisions of the War Cabinet and sometimes of Parliament.

It was not only the manpower survey that made the last half of 1941 a time of such great progress in the history of manpower budgeting. There had been other significant moves in the Ministry of Labour. Until June 1941 there had been three departments of the Ministry dealing with the mobilisation of manpower and no one person wholly responsible. In that month, a Director General of Manpower was appointed so that henceforward the problems of mobilisation were seen as a whole and focused on one person. From this time, the Ministry of Labour had a definite plan and worked out for twelve months in advance the measures necessary to achieve the manpower aims set by the War Cabinet after they had considered the surveys. Mobilisation was a planned operation rather than a series of disconnected steps.

The operation was not, of course, simple. Inevitably, proposals for the transfer of workers and for cuts in labour requirements or, if necessary, in programmes, involved difficult negotiations with the departments concerned. Much of the work of reconciling conflicting views at the highest level and placing the central issues before the War Cabinet devolved upon Sir John Anderson. First as Lord President and then as Chancellor of the Exchequer he remained one of the central figures in manpower budgeting until the end of the war.

The manpower problem that the Lord President put before the War Cabinet at the end of 1941 was clear. Substantial savings had been achieved in the original requirements put forward. But even so, the still formidable total of Service demands could not be met without lowering the calling-up age and refashioning completely the principles and procedures of reservation. A new National Service Act would also be necessary.

¹ See Chapter V above.

The content of this Act will be more fully understood after a survey of the evolution of the principles and mechanisms of manpower policy between Dunkirk and Pearl Harbour.

(i i)

Methods of Achievement

The previous section has shown the Government and its officials constantly looking forward to take the measure of the effort to which the nation must screw itself up. Later in the war, as programmes became more stable and scientific and the shortages of other resources by comparison less acute, the forward calculations of manpower demands became far more accurate. But amidst the uncertainties of the months between Dunkirk and Pearl Harbour, prophecies of the immense movements that lay ahead necessarily changed rapidly. It is possible that the account of these changes has produced some confusion. Let us therefore retrieve clarity by recalling the outline of what actually happened.

Since labour statistics always relate to June, it is unfortunately impossible to show the movement of the population over the whole of a period that begins in June 1940 and ends in December 1941. Table 2 (b) on p. 203, however, shows the changes in the distribution of the labour force of working age between the middle of 1940 and the middle of 1941. Between June 1940 and June 1941 the numbers in the armed forces and auxiliary services rose by 1,110,000. The labour force in the munitions industries rose in the same period by 680,000, and the numbers employed in civil defence and the Group II industries rose by 265,000; the increase in the Group II industries was accounted for by an increase in those employed in government services. There had thus been a total increase in the Forces and in the numbers in the industries most directly concerned with the war which amounted to about 2,056,000. Where had all these people come from?

The Forces and war industries had been fed from three sources. The first was a reduction in unemployment; between mid-1940 and mid-1941 the numbers of unemployed in Great Britain fell by 447,000. From the second source there was a much larger flow of manpower; this was the great transfer from the Group III industries—textiles, building, distribution and a widerange of miscellaneous industries and services—where the labour force fell by 953,000. It was these immense transfers, continuing every year until 1944, that had such an important influence on the nation's standard of life and which were to characterise the British manpower effort when compared with that

of the United States.¹ The third source of inflow into the Forces and war industry was the non-industrial section of the population.² Between mid-1940 and mid-1941 the total population of working age decreased by about 36,000, largely because of casualties; but within this slightly smaller population of working age, there had been a transfer of men and women from the non-industrial sector to the Services and industry. Between mid-1940 and mid-1941 the total of men and women in the Services and industry increased by about 656,000;³ of this number over half a million were women.

This global arithmetic and the account of 'net' changes greatly over-simplifies the manpower movements that actually occurred. Despite the great transfers to the Services, the total industrial labour force fell by only 45,000; but this figure was composed of a net loss of 640,000 men and an increase of 595,000 women. Some of the men and women coming from the non-industrial sector probably went straight into the Forces and the munitions industries; but a great many women—and perhaps many men hitherto unemployed—helped the manpower problem by taking some humdrum job in Group II or Group III, thereby releasing a man for direct war work. Meanwhile, wastage from the Forces was considerable and most of the men discharged would have found a job somewhere in industry. The net increases in the Forces and in war industry were thus achieved only by continuously complex movements.

Movements of manpower into the Forces and war industry do not of course tell the whole story about the devotion of manpower resources to the war. During 1941, an increasing proportion of the workers not only in munitions but in the other industrial Groups was engaged on government production and government services and fewer upon civilian and export work. The Ministry of Labour calculated that by July 1941 about forty-nine per cent. of the total occupied population was employed upon government work of one kind and another.

Between mid-1941 and mid-1943, Great Britain was to add another two million men and women to the Forces and munitions industries;⁴ the screw was to turn much tighter. Yet six months before Pearl Harbour, the nation was already, by any standards except its own, very highly mobilised. It had rather more men and women in the Forces, Civil Defence and munitions together than there had been in 1918 after four years of war.⁵ And as late as the middle of 1944 the

¹ See below, pp. 370–373.

² See above, p. 138 for definition of this class.

³ This figure also includes recruits to the armed forces from Ireland, etc.

⁴ See Table 2 (b) on p. 203.

⁵ In 1918, there were about 7½ million men and women in these sectors in Great Britain; in 1941 just over eight million. In 1941 however the population of working age was 4½ millions greater than in 1918.

United States had no more than forty per cent. of their total labour force in the Forces and civilian war employment.¹ The figure of forty-nine per cent. which we have given for the proportion of Great Britain's labour force immediately devoted to the war in July 1941 is not strictly comparable with this United States figure and may be an over-estimate. But the margin of error is small enough to keep the comparison striking and to emphasise the manpower achievements of Britain between Dunkirk and Pearl Harbour.

How had this mobilisation been carried out? The method that springs first to mind is the Defence Regulation² made under the Emergency Powers Act of May 1940, which armed the Minister of Labour with powers undreamed of in the philosophy of any previous British Minister. He might direct through his National Service officers any person in the United Kingdom to perform any service required in any place.³ He might prescribe the remuneration and conditions of such services and the hours of work. He might require persons to register particulars of themselves; he might order employers to keep and produce any records and books. Into his hands had been given the unrestricted powers of industrial conscription.

The powers were drastic but for some time they were used not ruthlessly but with great moderation. The visionary ideal of war organisation which the legislation of May 1940 nurtured—each single citizen in his appointed war station—did not approach realisation for another two years. In 1940 and the early part of 1941 it would have profited the war effort nothing to shift millions of unskilled, untrained men and women about the country even had the Minister of Labour been willing to do so, and even had some machinery of transfer existed.⁴ Such people were still wanted only in small numbers in only a few parts of the country. It was for skilled labour that the factories were begging and the chief task of labour supply policy at that time was to produce a sufficiency of skilled men for munitions work and to distribute them wisely.

There were only two ways of producing more skilled men—by training and by making sure that no skilled men were being used on unessential work or work where their special skill was not needed. Neither way was easy. Training, for example, meant that skilled men had to be diverted from current production to work as instructors. And the people most likely to learn quickly were those already very busy on less skilled work. The Minister of Labour, in co-operation

¹ Table 4: *The Impact of the War on Civilian Consumption*. London, H.M.S.O., 1945.

² S.R. & O. (1940) 781 (22nd May 1940).

³ The Regulation however said that the services to which a person might be directed must be services which that person was capable of performing. In practice this imposed an age limit to industrial conscription.

⁴ This is discussed below, p. 311.

with the production departments and the Engineering and Allied Employers' National Federation, had to use his persuasive powers to the utmost to induce hard-pressed employers to train and upgrade workers. The factories were the main training ground, but well-equipped technical colleges were also used for higher skills. The Ministry of Labour's own training centres dealt mainly with the semi-skilled worker and even then not on a grandiose scale.

High skill could be won only after lengthy training. Training was therefore important for the future rather than the present. Some immediate increase in skilled workers was possible by seeking out those whose skill was being wasted. This was done through a series of special Industrial Registration Orders. In August 1940, men in certain general engineering occupations who were not already wholly on government work, or men who had followed these occupations for at least a year during the last twelve years had to register at the exchanges.¹ Subsequently this register was combed to fill specially important needs—tool-makers and skilled fitters, for example, and men with experience of electrical or wireless work. There were, too, fresh registrations—for ex-shipyard workers in March 1941,² and for marine engineers in May.³ Identification of the men was only a beginning, for almost invariably there followed protracted negotiations with other interested departments to secure releases from work which was also of national importance.

The Industrial Registration Orders, important though they were, could in any case only touch the fringe of the skilled labour shortage. As time went on the chances of finding skilled labour at work outside the munitions industries became negligible. The only hope of preventing the shortage of skilled men from holding up production was by making far better use of those already at work in the munitions industries. The fundamental need was for dilution; as the Manpower Requirements Committee emphasised in November 1940, three skilled men must do the work hitherto performed by four. Such an achievement was not impracticable; the possibilities of breaking down and 'de-skilling' work were indeed immense. But before these possibilities could be realised, various difficult conditions had to be fulfilled. In the first place, as skilled labour was upgraded to more highly skilled work, less skilled labour must be ready to take its place right down to the 'green labour' coming in at the factory gates. Until the general labour shortage arrived in the summer of 1941, this condition was not too difficult. But secondly, the skilled men of the whole engineering industry must be treated as an industrial army to

¹ S.R. & O. 1940, No. 1459 (3rd August 1940).

² S.R. & O. 1941, No. 239 (24th February 1941).

³ There was also a special registration in May of men with seafaring experience to find recruits for the merchant navy.

be allocated to the best possible use in the general interest and not hoarded by individual employers or production departments. Every firm in the country must dilute, even at the cost of temporary dislocation of production. And the men released must be mobile; for whereas the greatest reserves were in London, the South East and the Midlands, the greatest needs were in the North West.

This principle of pooling the nation's skill was clearly excellent, but the Ministry of Labour had to struggle hard and long to persuade the skilled men, their employers and production departments to respect it, not only with their lips but in their actions. When the Ministry's officials decided that a firm must give up some of its skilled men for transfer, individual workers had to be selected. For reasons that will be discussed later,¹ the Minister of Labour was firmly resolved to rely mainly on persuasion and to keep in the background the compulsory powers bestowed on him by Parliament. Sometimes men would volunteer to move to other work in distant towns, but more often they had to be asked to go in the face of separation from their families, and perhaps lower wages and additional expense. While the workers were often loth to go, their employers were usually no less reluctant to release them. The clamourings of the supply departments for their contracts convinced firms that they had not too much skilled labour but far too little. When it was clear that demands for skilled men would not be met from outside sources, firms would upgrade and dilute to meet their own needs, but all too few were sufficiently altruistic to offer freely men for work elsewhere.² Yet the big new shadow factories that were completed at the end of 1940 could not begin work without a nucleus of highly skilled labour.

In these difficult dealings with the skilled men and their employers the Ministry of Labour looked for the support of the production departments. But for a long time these departments seemed no readier than their contractors to sacrifice their own immediate claims in the interests of the efficient distribution of skilled labour. The Ministry of Supply, for example, would not wish to lose its labour to aircraft production. And even within each department there were many directorates, all anxious to push on with their own production and increase the resources at their disposal; an airframe directorate, say, would strongly defend its labour against the ravages of aero engines. In the Britain of late 1940 and early 1941, these difficulties were inevitable. Much of the slack in the British economy had been absorbed and there were signs of tautness and strain. Impressed with the national danger and fired with enthusiasm for production,

¹ See below, p. 312.

² As late as November 1941, the Director of Labour at the Ministry of Aircraft Production was complaining of 'the almost completely negative attitude displayed by contractors to the many appeals to release skilled labour'.

supply departments, like their contractors, were anxious not to fall down on their own particular duties. They were apt neither to know, think nor care about any other part of the programme than their own.

But however understandable these private wars might be, it was supremely important that they should be subdued and that supply departments, instead of fighting each other and the Ministry of Labour, should combine their efforts and concentrate all their malice upon the enemy. Britain's expansive ability was limited and the scale of her war effort would largely depend on efficient organisation. By the time of Pearl Harbour, the supply departments had learnt enlightenment and the administrative techniques for distributing scarce resources had been mastered. No other war-making country acquired the same skill in co-ordination. The United States, with their colossal reserves of productive power, could achieve a mighty war effort in spite of the jurisdictional quarrels that persisted in the administration right up to the end of the war. In Germany, the shortcomings of planning and co-ordination were much greater; that was not least among the reasons why Germany lost the war.¹

In Britain a steady effort was made from the autumn of 1940 to substitute an allocation system for the general priority directions that were ruling the distribution of raw materials, capacity and labour. These directions, necessary in a moment of great urgency, were on any long term view clumsy and dangerous. Certainly this was true of labour. We have already seen the beginnings of manpower budgeting which meant in effect the allocation of manpower. Allocation was combined right to the end of the war with a system of priorities; but the priorities became temporary and flexible rulings applied to individual firms instead of the rigid general priority direction promulgated in 1940. This method of allocation and priority would have been unworkable without day-to-day inter-departmental collaboration at all levels in the distribution of manpower. By the time of the first manpower budget, departments had painfully learnt the blessings of collaboration through their struggles for skilled labour during 1941.

Even before the summer of 1940 was over, it was clear that the general priority direction made it impossible for the Ministry of Labour to eke out the supplies of skilled men. As long as the Ministry of Aircraft Production could flourish its 1(a) priority, maximum training and dilution of skilled men could not be forced on aircraft firms. And as long as the labour requirements of the priority groups were unsatisfied, Ministry of Labour officials had no legal power to exercise discretion and common sense in the local distribution of

¹ See *United States Strategic Bombing Survey*, 'The Effects of Strategic Bombing on the German War Economy', *passim*.

scarce labour.¹ Lord Beaverbrook's contention that though these methods wasted labour, they produced aircraft, was little comfort to Mr. Bevin who also had to think of guns and shells and ships and who believed that there was standing idle in aircraft factories skilled labour that other war contractors desperately needed.

At the end of September 1940, the War Cabinet decided that henceforth available resources of labour, material and industrial capacity must be allocated proportionately to existing supply programmes. The Minister of Aircraft Production alone among the members of the Production Council maintained that this did not mean the abolition of the general priority directive. A note from the Prime Minister was necessary to make the position clear. Aircraft production must retain the 1(a) priority, he said, but only for executing approved programmes. This priority must not be abused nor needlessly hamper other vital departments. Requirements of labour and material for aircraft were to be specified in advance and surpluses be made available for others immediately. If approved M.A.P. demands absorbed the total supply of a particularly scarce commodity, a special allocation must be made, even though the M.A.P. were prejudiced, to provide for other minimum essential needs. From time to time, temporary priorities would have to be granted to other 'laggard elements' in the war production programme.

This did not satisfy the Minister of Aircraft Production, who was still insisting in January 1941 that he would cling to his labour priority in spite of inconveniences and disturbances, however regrettable, to other departments. But though the general priority lists remained, the Prime Minister's minute turned them into a guide rather than a directive. The Ministry of Labour hastened to instruct its local officials that henceforth priority for any product did not confer on undertakings engaged in its manufacture any exclusive right to available supplies of skilled labour. Labour should be distributed in accordance with production programmes, and to firms where raw material was available. The first aim of local officials should be to break down bottlenecks in the production of essential war materials.

If these new principles for allocating skilled labour were to be successful, it was clearly necessary to strengthen day-to-day inter-departmental collaboration, both in the regions and at headquarters. The local officials of the Ministry of Labour needed a continuous and up-to-date flow of information about the firms with which it had to deal, about the importance of their production, their contract position, and so forth. This information could only be conveyed through competent and well informed regional officers of the supply

¹ e.g. a firm manufacturing excavators, sixty per cent. of them for coastal defence and forty per cent. for iron-ore mines, had no priority and no means of keeping its labour.

departments in daily contact with headquarters and their contractors. For a long time the Ministry of Labour strove almost in vain for the establishment of efficient regional organisations. The supply departments were persistently reluctant to decentralise responsibility to local officials or to provide them with adequate knowledge of programmes and priorities. The supply departments as a whole did not show any real willingness to co-operate in the regions until September 1941, when the Minister of Labour startled them into it by announcing that any new vacancies for skilled men could be filled only by removing them from existing contracts.

Similarly, machinery for headquarters collaboration was not really working until September of 1941. The Prime Minister's instructions in the previous October about priorities had mentioned special arrangements for 'laggard elements'. At first the Ministry of Labour made itself responsible for identifying these elements. In part the Ministry followed directives from the Prime Minister, one of which, for example, gave overriding priority to skilled men for radio. In part it was guided by discussions at the Production Executive and the inter-departmental Labour Co-ordinating Committee. For the most part, however, the special priorities for laggard elements were granted at the request of individual supply departments. These dispensations inevitably produced recriminations. The Minister of Aircraft Production objected to special priorities for royal ordnance factories which were thereby ranked with aero engines, the Minister of Supply objected to the priorities for aero engines and the Admiralty wanted assurances that none of these priorities would interfere with any of its contracts. In September 1941 the selection of special priorities was turned over to an inter-departmental committee,¹ which was soon dealing with non-skilled labour and non-munitions industries instead of simply with skilled labour for munitions industries. Before the end of 1941, the industrial basis of priority of labour had been abandoned and priorities were henceforth given only for individual establishments.

Discussion of the distribution of skilled labour has taken a good many pages, but they have been necessary. For if war factories could not get a minimum of skilled labour they could not make their demands for unskilled labour effective. The rising tide of general labour demands in the autumn of 1941 was proof that the worst of the skilled labour difficulties had been conquered. Moreover, the machinery and principles for distributing skilled labour were equally valuable for coping with the large-scale movements of the unskilled. But there were also other much wider problems in the mobilisation of the general population, and it is to these that we must now turn.

¹ Known as the Sub-Committee on Preferences.

The year 1940 closed, it will be recalled, with the threat of a famine of manpower. Other shortages—of skilled men, machine-tools and particular raw materials—might postpone the day, but if the war programmes were ever to be fulfilled it was only a question of time before the threat became reality. During the last weeks of 1940, the Ministry of Labour was preoccupied with ways and means of meeting this general manpower shortage. The fruit of its discussions was a paper called 'Heads of Labour Policy' which the Minister of Labour put before the War Cabinet in January 1941. This dealt with three main problems. First, there was a clear prospect of a shortage of recruits for the armed forces; men of military age must be reallocated between industry and the Forces. Secondly, men outside military age and women must be brought into the war factories. Thirdly, once men and women were in essential work, they must be kept there.

The recruits for the armed forces could not be found unless the Schedule of Reserved Occupations was drastically modified. The Schedule had been invaluable in preventing wholesale misapplication of manpower early in the war, but it was far too inclusive and lavish for more stringent days. Men reserved through their age and occupation were exempt from the Forces even though they were idle or engaged on unessential work. Under the Minister of Labour's proposals to the War Cabinet, the scheme of reservation was to be recast, and reservation was to be increasingly based on the actual work done by each man and not simply on his age and occupation. The Ministry of Labour would prepare a Register of Protected Work and men in scheduled occupations employed on such work would be reserved at specially low ages. 'Block' reservation was not yet discarded, but the new scheme refined it.

The mobilisation of women and of men outside military age was perhaps the biggest task. It would be an impossible one unless the Ministry of Labour provided itself with a register of people suitable and available for transfer to war work. Apart from men registered for military service and for engineering occupations, the population as officially known at the end of 1940 was still only so many figures. The Ministry of Labour did not know whether any particular man over forty was a railway signaller who must stay at his work or a maker of, say, pianos who should be transferred. And at the composition of the millions of 'unoccupied' women on whom so many hopes rested the Ministry could barely guess. How many were in fact free and mobile and how many looked after an invalid parent? Unless the Ministry of Labour knew the answers, it could not begin to shift people from industry to industry and from town to town. Registration, therefore, was the indispensable prelude to transfer. Neither process could be left to voluntary methods. Compulsion was

necessary, it was fair, and the support of say ninety-five per cent. of the population, without which it would be dangerous or useless, now seemed assured. The Minister of Labour therefore sought the War Cabinet's approval for the use of his powers of registration and direction to whatever extent might be necessary to ensure adequate labour for essential work. The Minister would not, however, direct people to work where wages and working conditions, or housing, feeding or transport arrangements were unsatisfactory. The wage for directed work would be the rate for the job in the place in which the work was to be performed, plus lodging and travelling allowances where appropriate. Directions would be subject to appeal.

The third of the Minister of Labour's problems—to keep put workers in essential jobs—was not new. High turnover, wastage and poaching had been conspicuous, and sometimes flagrant, from the beginning of the war. In June 1940, Mr. Bevin had made the Undertakings (Restriction on Engagement) Order¹ under which all new engagements of labour in general engineering and in the building and civil engineering industries, were to be made through the employment exchanges: it was also made an offence for an employer in any other industry to engage men from agriculture or coal-mining.² These methods prevented the more obvious forms of poaching by advertisement and enticement; but this was not enough. For example, workers could not as yet be stopped from dismissing themselves. Nor could they be stopped from removing themselves from bombarded cities, such as London and Coventry. In short, the Restriction on Engagement Order was inadequate and the supply departments grew increasingly restive. A new method had to be found which would have the effect but not the unpopularity of the leaving certificates of the 1914-18 war.³ The Minister of Labour's proposal to the War Cabinet was that he should have power to declare, after consultation with the supply departments, that the work of any undertaking was national work. No employee might leave such work nor be dismissed without the permission of a National Service officer. The Minister might also prescribe proper arrangements for personnel management and workshop consultation.

This then was the Minister of Labour's three-pronged policy for meeting the general labour shortage. The War Cabinet accepted it in January 1941 as a 'bold and comprehensive scheme' and for the next few months the Ministry of Labour was occupied in working it out into detailed administrative terms. Providing recruits for the armed forces was the most urgent of the tasks. The principles of the

¹ S.R. & O. 1940, No. 877.

² When unemployment in coal-mining rose with the cessation of exports to France, the Order as it applied to coal-miners was very loosely administered.

³ See p. 27 above.

changes to the Schedule of Reserved Occupations were soon clear. Men were to be combed out of industry by raising the ages of reservation by stages. In the vital occupations for which there were two ages of reservation—the lower one for ‘protected’ work—men were not to be called up immediately they became dereserved; the Ministry of Labour was thus to have the opportunity of allocating them in the most appropriate way between war factories and the armed forces. The process of wringing acquiescence in every schedule change from the interested government departments and industries was inevitably lengthy and the revised Schedule was not ready until April. This revision by itself could not yield sufficient recruits for the Services. It was impossible to find the numbers required without calling up men for the Forces at nineteen instead of twenty; this step was agreed in January 1941.

The plans for getting more men into the Forces applied only to able-bodied men between the ages of nineteen and forty and they were therefore much more manageable than the plans for industrial mobilisation. The two Orders giving effect to the industrial side of the labour policy that the War Cabinet had agreed were both ready in March 1941; one was the Essential Work Order¹ and the other the Registration for Employment Order.²

The Essential Work Orders were effective as a method of keeping workers in their jobs and yet they did not incur the odium of the old leaving certificates. This was because they established mutual obligations between the employer and his workers. Undertakings engaged on work essential to the defence of the realm, the efficient prosecution of the war or the life of the community could be scheduled under the Orders. No employee of a scheduled undertaking could leave, be discharged or be transferred without the permission of a National Service officer except for serious misconduct. Workers who were absent from work for no good reason or were persistently late could be formally directed to attend work during specified hours. On the other hand, undertakings were not scheduled unless their terms and conditions of employment and welfare arrangements were satisfactory. Scheduled undertakings, moreover, had to guarantee their workers’ weekly wages even if there was temporarily no work for them. Some opposition to the various clauses from one side of industry or the other was inevitable; but generally the Orders were accepted and their purposes were served. Scheduling in consultation

¹ S.R. & O. 1941, No. 257 (28th February 1941) amended Defence Regulation 58A to give the Minister of Labour power to make the Order. The first main Order was the Essential Work (General Provisions) Order, S.R. & O., 1941, No. 302 (5th March 1941). Subsequently other Orders were made for particular industries on the basis of the main Order.

² S.R. & O. 1941, No. 368 (15th March 1941).

with the interested departments and industries went on apace and by the end of 1941 some 29,000 undertakings, employing nearly six million workers, were covered by the Orders.

At the same time as the Ministry of Labour was tying essential workers to their jobs, it was busy drawing more men and women into the munitions industries. Soon after the Registration for Employment Order was made (March 1941) men aged forty-one to forty-three and women of twenty and twenty-one were called to register. Other age groups followed through the year in accordance with the Ministry of Labour's plan to produce the numbers required at the right time. Men and women who, from their registration particulars, seemed suitable for transfer were then interviewed to discover any individual circumstances that might make transfer to war work difficult. At first the Ministry handled compulsory interviews and transfer with extreme caution, convinced as it was that it could not safely outstrip public opinion. For the time being it hoped to confine the process of interview to people not in full-time employment. Local officials moreover were explicitly instructed to make every man and woman feel that his or her case was being treated individually and with sympathy. It was indeed most important not to antagonise men and women, many of whom were becoming acquainted with the inside of a labour exchange for the first time in their lives. Women in particular might be sensitive to questioning and must be treated with the greatest friendliness, patience and understanding.

Compulsory transfer through directions was handled even more carefully. Ever since the fall of France, the Ministry had been trying to transfer numbers of skilled men and numbers of workers in special industries. But what with wage differences, domestic problems, bombing, a plethora of medical certificates and suspicion of victimisation by employers, National Service officers had been very sparing with directions, and the Minister himself refused to authorise directions to work where conditions were bad or the wages exceptionally low. During the early months of 1941 the Ministry was indeed progressing from a desire to avoid accusations of callousness to a conviction that without it men could not be transferred in adequate numbers. But this regretful ruthlessness was not applicable to the men and women called upon under the Registration for Employment Order. Instead, the Ministry of Labour found itself with a whole new range of transfer complications—the domestic problems of women and the financial liabilities of professional men and men in businesses on their own account.

The Registration for Employment Order was important during 1941 primarily as a means for mobilising women. Before long it became apparent that the early cautious methods made interviewing

slow and the yield for transfer small.¹ The existence of a large reserve of transferable 'unoccupied' women had proved a mirage; they were mainly, it seemed, running households for other people. The women already in employment were the only group likely to provide a substantial number of women for transfer. In June, as the munitions industries' needs for women became pressing, the Ministry of Labour decided to call for interview every registered woman in full-time paid employment unless her work came under the Schedule of Reserved Occupations or seventy-five per cent. of her firm's work was for government and export. But this attempt to by-pass lengthy negotiations proved ill-fated. Employers were outraged when they found that, without their knowledge, their women workers had been interviewed and persuaded to transfer themselves elsewhere. A general stop was for a time imposed on interviewing women outside the clothing and 'concentrated'² industries. New arrangements were then hastily made providing for consultations with employers and with the headquarters and local officials of interested government departments.

As more women were brought into the interviewing net, a much stiffer interpretation was put upon availability for transfer to war work away from home. Women would be exempted only if they could prove serious domestic hardship or if their employers could prove that they could not be withdrawn from their jobs. The new policy was announced in August with a flourish of publicity about the seriousness of the womanpower shortage. At the same time older women were urged to come forward for local war work and to replace women who were being transferred.

So far we have been considering general industrial mobilisation. The organisation of an immense transfer of men and women into direct war work was the biggest task of all. But in addition, special arrangements had to be made to solve the labour difficulties of a variety of individual industries that were vital to the war effort. In the summer of 1941, for example, there came the first manpower crisis in coal-mining. An Essential Work Order was made for the industry³ and as a result of a special registration of ex-coal-miners in July, 25,000 men went back to the mines by the end of October. Recruiting for the Forces from the mines was stopped. Other industries were dealt with through 'Ring Fence' schemes.⁴ In shipbuilding and ship-repairing, the docks, building and iron and steel, the labour

¹ By the end of the third week of August 1941, 1,560,500 women had registered, and 427,900 interviews had taken place, from which 46,400 women had gone to war industries and 15,000 to the women's Services.

² 'Concentration' is explained below, p. 310.

³ S.R. & O. 1941, No. 707 (15th May 1941).

⁴ Certain conditions were necessary for the introduction of these schemes:

1. all the important firms had to be scheduled under the Essential Work Order.
2. the industry must be controlled by one government department.
3. the industry must depend on specialised types of labour.

force was tied to the industries by variations of the Essential Work Order. The responsible government departments, in collaboration with the industries, were then charged with the day-to-day distribution of labour between individual firms—a duty that gave them a powerful incentive to economy in the use of labour.

In retrospect, the most significant feature of manpower policy in the months between Dunkirk and Pearl Harbour is the development of industrial conscription. It has therefore been essential to examine its foundations carefully and at some length. But, as we have seen, compulsory transfer up till the summer of 1941 was proceeding but slowly. Its influence in the big migration into war industry between mid-1940 and mid-1941 must not therefore be overestimated. Most of this migration had in fact been voluntary. In the nation's most dangerous hour, much of the effort which wrought salvation was made without compulsion. The pilots who fought the Battle of Britain were volunteers. Service in the Home Guard and Civil Defence was given freely. Military conscription had built up the armed forces; but industrial conscription was operating as yet only on the difficult margins of the war economy. The award of government contracts, fortified by grants of priority for materials and labour, was perhaps the most important of all the forces that were building up munitions employment. For many workers, perhaps for the majority, transfer from civilian industry to war industry did not mean either a change of neighbourhood or of factory or of occupation; it was the factory itself that was switched over, by the contracts issued to it, from production for the civilian market to production for the war machine. The change was frequently a matter of the product, rather than of the processes upon which labour was engaged. Workers did also, of course, change their jobs, their factories and their neighbourhoods. A variety of 'pulls' and 'pushes' moved them. Patriotism drew many into war work, the desire to shelter from the Forces drew a few. Higher wages, as the next chapter will show,¹ were often a powerful incentive. Meanwhile, the decline of the unessential industries exerted a steady 'push'.

The next chapter will discuss more fully the policies by which this decline was accelerated; but some of them must be briefly mentioned here. Most important of all were the restrictions imposed by the Raw Materials Department and the Board of Trade. In the summer and autumn of 1940, when continuing unemployment was still an embarrassment, the Ministry of Labour had viewed with some alarm the increased restrictions that the Board of Trade was imposing in order to save raw materials and to conserve stocks. At this time, therefore, discussions centred on arrangements for mitigating the results of Board of Trade policy—by spreading supply departments' contracts,

¹ See below, pp. 339 f.

by better location of war factories and, as a last resort, by issuing temporary licences for increased home production.¹

However, after the manpower survey of 1940, economy in labour became almost as important as economy in materials as a reason for cutting down civilian supplies still further. One instrument of economy was the Limitation of Supplies Orders under which, in December, quotas for a whole range of miscellaneous goods were drastically reduced and, in the following March, the textile quotas were cut to a very low level.² But the main contribution of the Board of Trade towards solving the manpower problems of 1941 was its concentration policy. In January 1941, the Ministry of Labour had invited the Board of Trade to consider the whole scope and method of the Limitation of Supplies policy in order to maximise labour releases. The Concentration of Industry white paper of March 1941³ was the result. According to the policy announced in this white paper, the reduced volume of civilian production, instead of being thinly spread over many factories, was henceforward to be concentrated into a few factories working full time. The policy was to be operated in such a way as to make the greatest possible contributions of labour and factory space by the closing down of firms. The firms that were allowed to continue civilian production were called 'nucleus' firms; provided they fulfilled their obligations, their labour, raw materials and premises would be safeguarded.

The policy of concentration of industry will be examined in detail in a later volume in this series. We shall have something more to say about it in the next chapter of this book.⁴ Its labour effects, with which we are at present concerned, were sometimes rated very high. The Board of Trade estimated, for example, that between March 1941 and March 1944, nearly 290,000 workers were released as a direct result of concentration; most of these releases would have belonged to 1941, which was the most active phase of concentration. But such claims must be viewed sceptically; for in the contraction of civilian industry other processes besides concentration were at work and the effects of them all cannot be disentangled. By and large, concentration turned out to be a means, not of securing large releases of labour but of making orderly the releases which did for other reasons occur. Many industries, moreover, proved unsuitable for any form of concentration; in others, effective schemes never really operated.

As we have seen, the motives and forces that sent workers into war industry in the twelve months after Dunkirk were many. Except for the skilled men, most of the workers went there without the intervention

¹ A new 'Keeping Step' section of the Board of Trade was formed for this work.

² See below, pp. 321 f.

³ Cmd. 6258.

⁴ See below, p. 323.

of the Ministry of Labour. Contemporaries were highly critical of these methods of mobilisation. Apart from a lone voice or two crying that the Government was proceeding too fast,¹ and apart from unrewarding debates about the relative pace of the conscription of labour and property, the main burden of the criticism was that the Minister of Labour was too cautious in using his power to compel. From November 1940 into the early summer of 1941, Members of Parliament and newspapers were continually asking when the Minister was going to make drastic use of his powers; they were still asking the same question in September 1941.² The vigour, efficiency and boldness of manpower policy were deemed inadequate.

The criticisms must be considered first against the background of labour demands sketched in this chapter. There was very little sign of unfulfilled demands for unskilled labour in war industry before the spring of 1941,³ and the demands had not grown insatiable until the autumn. Voluntary movements were in fact generally sufficient until at least the summer. Only then did the strain of demand on supply make it imperative to comb the population for every man and woman able to work. Manpower policy it seems kept well abreast of demand.⁴ The framework of policy to cope with a severe labour shortage had been laid in January 1941 and by August was being administered with the firmness necessary to meet demands. The critics claimed too much credit when they implied that the development of labour policy was a response to their complaints.⁵ But, although there was no general failure of war production through the Minister of Labour's reluctance to use his powers, it is true that skilled labour was not moved about quickly enough and that there were vacancies in war factories in the summer which directed women could have filled. In part, this was due to the difficulties of enlisting the co-operation of employers and supply departments. But, as we have seen, Ministry of Labour officials did indeed hesitate over issuing directions.

Mr. Bevin spoke often of the psychological problems which were involved. 'Whatever may be my other weaknesses,' he said, 'I think I

¹ e.g. H. of C. Deb. Vol. 370, Col. 745 (27th March 1941); Sir H. Williams' speech.

² See e.g. H. of C. Deb. Vol. 367, Debate of 27th November 1940; Vol. 368, Debate of 21st January 1941; Vol. 370, Debates of 27th March 1941 and 2nd April 1941; *the Economist* generally and the issue of 6th September 1941.

³ The specific shortages of unskilled heavy male labour which appeared early were more akin to those of skilled labour; supplies were inelastic and the problem was one of allocation.

⁴ See e.g. the statement of the Parliamentary Secretary of the Ministry of Supply that, broadly speaking and with possibly one exception, the Ministry of Labour had provided labour at a rate approximate to the Ministry of Supply's power to absorb it; H. of C. Deb. Vol. 373, Col. 264 (9th July 1941).

⁵ See e.g. H. of C. Deb. Vol. 376, Col. 1061 (2nd December 1941), Mr. Horabin: 'When the Minister of Labour first took office the critics begged him to exercise compulsion over labour which he is now going to do. He indignantly refused on the ground that he was "a leader and not a dictator"'. A tardily growing appreciation of what is required has since forced him to introduce compulsion piecemeal . . .

can claim that I understand the working classes of this country.¹ Psychology, unfortunately, is not an exact science. But the essential truth remains that the Labour of which Mr. Bevin was Minister was not a mere collection of 'hands' nor simply the figures in a statistical table, but a vast multitude of men and women with human bodies and human hearts, both of which are breakable commodities. In some of these hearts the years of pre-war depression had left a bitterness and suspicion which ruthless compulsion would only have hardened. And although the methods of interviewing women were at first cumbrous, they paid rich dividends by winning the confidence of parents and of the women themselves. It was well that critics in Parliament and the press should be ahead of the Ministry of Labour over the use of directions, for, when it became essential to use them drastically, the nation's consent was assured.

The Ministry of Labour's realisation that it was ordering the lives of human beings had other important implications. It meant, for example, that the Ministry could not direct men and women to go to or stay in work where physical conditions were intolerable. In the days just after Dunkirk these questions had not been greatly heeded. Men and women worked excessively long hours. But it was soon found that 'to toil and not to seek for rest' was a precept of very limited application. Before long the Minister of Labour was insisting again on strict administration of the Factory Acts and was recommending maximum hours of work. Concern about hours of work widened into a general pressure for better welfare arrangements. The Minister of Labour would not direct men to work, however vital it might be, in establishments where the conditions of work were bad. The principle of proper welfare provision became enshrined in the Essential Work Order. The Ministry of Labour led a ceaseless campaign for better canteens, cloakrooms and lighting. Transport and buses had to be provided for new factories in remote places and hostels had to be organised in overcrowded towns where there was a shortage of billets. This policy—industrial conscription conditional on welfare—might seem a curious counterpart to a military conscription that sent men off to fight the Battle of the Atlantic or swelter in Libyan deserts. The antithesis was frequently made; but it was false. For the State itself employed the soldiers and stood in a clear contractual relationship with them; in industry, equivalent obligations had to be built up between the State, the employers and conscripted workers. Moreover, all the evidence emphasised the importance of welfare—the weekly rest, good meals, swift transport—in increasing the workers' output.²

¹ H. of C. Deb., Vol. 367, Col. 284 (27th November 1940).

² See e.g. *Twenty-first Report from the Select Committee on National Expenditure, Session 1940-1941* (6th August 1941).

Even if all these considerations had not counselled moderation in the pace of industrial conscription, another might well have enforced it. The mobilisation of the population demanded a large and efficient administrative machine. At headquarters, general policy had to be embodied in legal orders and instructions to local officials and the structure of interdepartmental co-operation had to be built up. In the regions, competent and wise officers had to be recruited and appeal tribunals and advisory panels established, while the local exchanges, often dingy and obscure, had to become centres for interviewing and transferring vast streams of men and women. Days of imminent peril are not the most suitable for developing large, streamlined organisations. Yet during 1941 the Ministry of Labour and National Service, which had not been born great and which had successfully avoided having greatness thrust upon it in the first six months of war, achieved its greatness. The department had expanded its slender functions and had become the keystone of the war effort.

Up to the autumn of 1941, then, manpower policy had overcome political and administrative difficulties remarkably well. By then, the Government was conscious that a new phase was beginning. Complaints of labour shortages were frequent and in October the Government's new manpower survey¹ forecast enormous new demands for the Services and war production during the next year. Throughout November, the Government was discussing how to meet requirements on this scale. The first necessity was a still more drastic use of powers that already existed. The reserves now consisted very largely of women, and the Prime Minister emphasised that the campaign for directing women into the munitions industries must be pressed forward. Married women without children were to be directed to industrial jobs near their homes and those with children should be encouraged to volunteer for part-time work. Meanwhile, the most rigorous economy in the use of manpower was to be enforced in the Services and in essential industry.

But a more drastic application of existing powers was not enough. It would not solve the most difficult problem of all, which was to find the men and women needed by the Services. Under existing arrangements the men simply were not available and the women could not be persuaded into the Auxiliary Territorial Service. The War Cabinet decided upon three measures. First, young men were henceforward to be called up at 18½ instead of nineteen. Secondly, the system of reservation from military service by occupations was to be changed gradually to individual reservation. This was a heavy administrative task which was to be achieved by raising at monthly intervals the age of reservation for all occupations by a year at a time: each individual case would then be examined and deferment, amounting

¹ See above, p. 293.

to reservation, granted only to the men engaged on vital national work.¹ The third and most important measure was the introduction of a new National Service Act.

The Minister of Labour and National Service asked the War Cabinet to approve the introduction of legislation imposing on all persons between the ages of eighteen and sixty the obligation to undertake some form of national service. This would have two effects. The age for compulsory military service for men would be raised from forty-one to sixty-one, which would enable the Minister of Labour to find older men to undertake non-combatant duties in the Services instead of young women who were more adaptable and could be more profitably engaged in industry. The second, revolutionary effect was to institute compulsory service for women in the women's Services and Civil Defence. The War Cabinet gave anxious thought to these proposals. It agreed to the extension of compulsory military service to older men, although the upper limit was reduced from sixty to fifty. It also agreed that power should be taken under the new Bill to direct men to join the Home Guard in case this became necessary. But some Ministers could not conceal their distaste for compulsory recruitment of women to the Services. They expressed especial misgivings about the feelings of airmen and sailors² if their sisters, daughters or sweethearts were conscripted. Prolonged discussions took place in the War Cabinet and informally between the Prime Minister and the other ministers involved. The subject was settled and then reopened. Finally, it was agreed that the Minister of Labour's case was incontrovertible and that there was no possible alternative. Military conscription was to apply to women between twenty and thirty, but women who were called up were to be given an option between the Auxiliary Services, Civil Defence and such specified jobs in industry as the Minister of Labour might direct.

The Government's proposals for the new National Service Bill were introduced into the House of Commons early in December and were gladly accepted. By the time of Pearl Harbour, therefore, the system was in all its essentials complete. It was a system which demanded for the State the services of men and women on a scale that Britain's totalitarian enemies never dared ask of their own people. Nevertheless, it was founded upon a rock; for it had carried with it the consent of the nation.

¹ The great volume of work arising was to be decentralised to fifty new District Manpower Boards.

² Curiously enough, similar misgivings were not expressed on behalf of the soldiers.

CHAPTER XII

THE COST OF INCREASING EFFORT

(i)

‘Hardship Our Garment’¹

THE disasters of 1940 had revealed the immensity of the effort the British people would have to make if they were to mobilise and equip Forces strong enough to fend off their enemies and finally defeat them. In economic terms, this effort meant broadly two things: first, an intense concentration of resources in the immediate war zone, and secondly, a simultaneous constriction of civilian claims upon resources. But there would be no virtue in applying the second principle indiscriminately, in a mood, as it were, of national atonement. The principle had above all to be applied in relation to the two specific emergencies that have been described in the two preceding chapters—the nation’s shrinking capacity to import, and its expanding claims upon manpower. Not that it would be possible to classify and label the people’s hardships in two quite separable categories; sometimes the pressure against civilian standards would come at the same time both from stringencies of overseas supply and from the domestic famine of manpower—not to mention all the things, materials and tools and factory space, for which the British war machine was hungry.

Throughout most of the months between Dunkirk and Pearl Harbour, the greatest pressure against civilian standards came from the need for shipping economies. Food standards were among the first to fall. A food supply sufficient to maintain health and strength was among the very highest shipping priorities. But the people had also to be fed economically. This meant a less palatable diet and programmes for domestic agriculture that would save as much shipping space as possible. Moreover, it was important that any temporary easement of food supplies, whether from home harvests or imports, should go to build up stocks and not to current consumption.

¹ The Prime Minister, H. of C. Deb. Vol. 365, Col. 303 (8th October 1940): ‘Long dark months of trial and tribulation lie before us . . . Death and sorrow will be the companions of our journey; hardship our garment; constancy and valour our only shield.’

In the atmosphere of impending siege in the summer of 1940, a committee of scientists was appointed to advise on the scientific aspects of food policy. They calculated that the basic food requirements of the nation, expressed in calories, proteins, fats, minerals and vitamins, could theoretically be provided by a diet of wholemeal bread, oatmeal, fats, milk, potatoes and vegetables. Wheat and fats would have to be imported; but all the other foods in this list, the scientists thought, could be produced at home in sufficient quantities to meet the needs of the whole population.

Such a diet was not really practicable—oat-milling capacity for example would have been quite inadequate—and Britain never came within measurable distance of it. In the summer of 1940, when shipping prospects were still far from clear, the scientists' programme seemed far too drastic. Indeed, for some months there were no great changes in food consumption. There was some tightening up, notably the rationing of tea and margarine in July; but, as was seen in Chapter X, considerable quantities of animal feeding-stuffs and other unessential items were still being imported up to the late autumn. In November, when it had become clear, even to obstinate optimists, that the sharp decline in food imports was due not to remediable mismanagement by the Ministry of Shipping but to a severe shipping shortage, the food programme was adjusted to include only essential foods. Fresh and canned fruits were cut out and hopes of increases in the tea and sugar rations disappeared. The meat ration, which had risen to 2s. 2d. during a temporary autumn glut of home slaughtering, slumped to 1s. 2d. in January 1941 and went down to 1s. at the end of March. There were in addition shortages of cheese, eggs, fish, milk and of the extras that add variety to diet such as onions, jam and sweets.

In the spring of 1941 the Ministry of Food believed that food supplies were definitely inadequate and that there were already signs of malnutrition. No evidence has so far been produced sufficient to prove or disprove the allegation. It is certain that the nation's food was not yet down to the point where further economies either in quantity or quality were impossible. In particular, everyone could buy and eat as much white bread as he wished. But the Minister of Food's declared policy was not simply to see that the nation was adequately fed but that the diet was as near normal as possible. The Prime Minister himself was alarmed at any tendency of the diet to move towards the 'basal' standards propagated by the scientists.¹

The food difficulties in the spring of 1941 were not all due to shipping. Although the main cause of the sharp reduction in the meat ration was a shortage of refrigerator ships, the reduction would have

¹ See above, p. 267.

been less startling if stocks had not been allowed to fall dangerously low in supporting a 2s. 2d. ration. While there could not be much variety of diet until the Lend-Lease Act opened up American supplies, inadequate distribution arrangements made the shortages of extras more noticeable and less tolerable. But, in so far as the scarcity of food was due to the shipping shortage, the possibilities of feeding the nation with a smaller volume of imports had not yet been explored very far.

In the first place, was not white bread a luxury? By March 1941, rising consumption of flour had combined with the fall in imports to reduce wheat and flour stocks from thirteen weeks' supply—the recognised safety level—to $11\frac{1}{2}$ weeks' supply. Moreover, continued air attack had reduced flour-milling capacity. If the extraction rate of flour were raised to eighty-five per cent., increased shipments of flour could be avoided and eight weeks' supply of wheat would suffice for nine weeks. But a battery of arguments assailed the proposal for a compulsory wheatmeal loaf. It was argued that there would be greater waste through staling, that wheat and flour would be illicitly fed to livestock to replace wheat offal, that more bread would be eaten to make up for the reduction in livestock products, and that if the supply of feeding-stuffs declined, pigs and poultry might be fed at the expense of cows. In addition, the millers and the public had no liking for the national wheatmeal loaf.¹ The chief reason, however, for continuing white bread was that it was felt to be psychologically a bad moment to change. Other shortages were at their worst and there was hope that these might be eased before long. The Ministry of Food therefore chose to increase flour imports and to raise the extraction rate only very slightly—from seventy-three per cent. to seventy-six per cent.

The rearrangement of home agricultural output offered the other main hope of managing with fewer imports. In the summer of 1940, the scientists had set forth the governing principles of food production in a besieged island. The immediate need, they had said, was for a great increase in the output of potatoes, sugar beet, cereals (especially wheat and pulse, mainly for human consumption) vegetables and milk. In such an economy there was not much place for meat-producing livestock; some small variety in a monotonous diet might be contributed by a remnant of animals maintained by the by-products of food crops and the grazing of land unsuitable for ploughing up. The scientists urged a great and immediate reduction in the number of pigs and poultry, as large consumers of cereals, and a planned reduction of lowland sheep and beef cattle, in the interests of a greatly increased area of crops for human food and fodder for dairy

¹ The Ministry of Food was at this time trying to popularise wheatmeal bread by advertising.

cows. But the scientists were too impulsive and doctrinaire. If real siege conditions had ever developed, or if shipping had grown so scarce that it barely sufficed to bring the raw materials without which the nation could not work and fight, the most drastic slaughter of livestock would have been necessary¹ to release food such as oats for human consumption and to release more land for growing those crops the scientists favoured. But, unless and until the country was face to face with hunger, with little prospect of early relief, the Government was quite rightly unwilling to contemplate such extreme measures.

Instead, a campaign was launched to plough up an additional 2½ million acres for crops and prices were manipulated to encourage farmers to produce according to the order of priority for different foods.² Animal feeding-stuffs were rationed from February 1941. After the end of 1940 practically no feeding-stuffs were imported. In making these adjustments, there was sometimes hesitation and a consequent waste of valuable shipping space. The rationing scheme for feeding-stuffs was delayed too long and not until March 1941 was the feeding of wheat to livestock prohibited. The control of home-grown cereals was not strong enough to secure sufficient oats off farms in the summer of 1941 for porridge, town horses and pit ponies; this meant that rolled oats and maize had to be imported. At the end of 1940, alarm was being expressed about the possibility of a further source of waste. Might not farmers tend to hold on to their animals in spite of the shortage of feeding-stuffs and at the expense of a heavy fall in the average milk or meat output from each animal? Might it not become necessary after all, as the scientists had forecast, to enforce a drastic slaughtering of animals other than those in the dairy herds?

For the first six months of 1941, a special Livestock Conference discussed the 'slaughter policy'. The Conference agreed that emergency slaughter to meet a temporary shortage of meat was fundamentally unsound because the beasts might only be skin and bone. However, it recommended positive measures to reduce the numbers of pigs and poultry. It thought that exhortation and the rationing schemes would sufficiently reduce the beef cattle herds. When, however, the Conference considered the third year of war, it found that estimated supplies of feeding-stuffs would be so small even on the most favourable assumptions that they would only support a vastly reduced pig and poultry population and considerably fewer sheep and beef cattle. Beef cattle were the most difficult problem; a reduction of their numbers on the scale suggested would be impossible

¹ Sudden, heavy slaughterings were very wasteful owing to the limited cold storage space. Heavy slaughterings in the autumn of 1940 had meant that the meat ration had to be raised temporarily to 2s. 2d.

² For prices discussion see below, pp. 341-2.

without requisitioning for slaughter. Nor would fair distribution of the limited feeding-stuffs be possible without requisitioning cereals from some farms for sale to others. While the Food Policy Committee was considering whether such drastic measures would be worth the outcry they would cause among the farmers, the Ministry of Agriculture, which had never really believed in the slaughter policy, conveniently reversed its previous conclusions by saying that an overall shortage of feeding-stuffs was unlikely in the next winter. Intensified slaughtering was therefore unnecessary. This turned out to be the right conclusion. Indeed, the statistical data in the original calculations had been too uncertain to form a basis for such drastic measures of policy. Moreover, had compulsory slaughtering on a grand scale begun, shortage of cold storage, once meat imports began to improve, would have brought it to a derisory end.

This rather involved discussion has been necessary because live-stock policy was in its day a burning issue. There was a widespread conviction in government circles that the nation's food resources were being dissipated by keeping animals that were inadequately fed. The zeal with which the argument was pursued was perhaps disproportionate; for there were other ways in which shipping space was wasted and other economies not yet made. In general, food policy and home food production were being adapted fairly efficiently and smoothly to the prospects of a long, exhausting war in an island whose sea communications were under constant attack.

The shipping shortage, combined with some exchange and supply difficulties, demanded economy not only in the civilian's food but also in the raw materials for civilian industries, which moreover were bound to be curtailed to meet the growing demands of the munitions industries. At the time of France's collapse, ministers were painfully aware that civilian raw material supplies had been far too liberal.¹ Between that time and Pearl Harbour raw material control was greatly tightened. The supply and distribution of nearly all the important materials were brought under control² and the controls themselves were operated more efficiently. Distribution methods were notably stiffened. For some major materials such as iron and steel and timber, allocations were made to government departments which became responsible for distributing their own limited supplies between many competing claims. Where distribution was still operated by the licensing machinery of the raw materials controls, applications for licences were examined with increasing severity. By these means civilian claims were constantly cut down and many unessential uses eliminated. There was, for example, an embargo on the use of timber

¹ See above, p. 177.

² At the time of Pearl Harbour, rubber and tin were the only important commodities whose markets had not been closed down.

for many purposes. Some articles were permitted only if they were made from waste material. Aluminium virtually disappeared from all civilian uses except the replacement of machinery parts. The Board of Trade refused to release steel for a long list of goods ranging from sports equipment to springs for bedding. In 1941, less than twenty-five per cent. of the total supplies of steel went to exports and 'civilian uses'—a generic term which included such essential purposes as civil defence, the fuel and power industries and the post office.

There persisted throughout the war some grave imperfections in the organisation of raw material control.¹ Even if the organisation had been stronger, the difficulties with which it had to cope would have been sometimes intractable. Private stocks of materials existed and eluded control. It was always extremely troublesome to detect and plug leakages and to ensure that materials were in fact used for the purposes for which they were licensed. For these and other reasons, the control of raw materials could not by itself achieve the necessary diversion of resources from civilian industry to war production. This diversion was in the end achieved by a complicated, interlocking system of controls—not only over materials but also over labour, over the use of premises and over the quantities of specific civilian goods which might be produced or supplied to the home market.

The direct labour controls have been sufficiently discussed in the previous chapter. Nothing has yet been said, however, about the controls over the use of premises. In the autumn of 1940, the general increase in war production, the dispersal of industry beyond the target areas and the building up of stocks all combined to create a great demand for factory and storage premises. The scramble for space among a crowd of government departments and private firms rapidly degenerated into chaos. From the end of 1940, therefore, there were intensive discussions about bringing the demand and supply under control. In May 1941, a Control of Factory and Storage Premises was at length established within the Board of Trade. One of the Control's first moves was to survey the possible supply of space. It compiled a register of all factories employing ten or more workers which were likely to have spare capacity owing to war conditions: detailed particulars about their production and their factory buildings were collected. Similarly, a register was made of all premises over 3,000 sq. ft. which were, or had been used for any kind of storage. This information provided an indispensable basis for the function of allocating space, which the War Cabinet had vested in the Control. Every government department was bound to obtain the

¹ See generally J. Hurstfield's *The Control of Raw Materials*, in this series (H.M.S.O., 1953).

Control's authority before requisitioning any premises for manufacture or storage. And, in July 1941, the movements of private firms were brought under control by an Order¹ which made it necessary to obtain a licence before changing the use of any factory or warehouse of more than 3,000 sq. ft., or before making any premises of this size into a factory or warehouse.

Resources were, then, transferred directly from civilian industry to war production by cutting down raw materials, by withdrawing labour and by requisitioning factory space. These positive methods of transfer were buttressed by the controls over civilian supplies. The first statutory limitations on the supplies of goods to the home market had been introduced in the spring of 1940 in the interests of the export trade. They had been followed by a system of machinery licensing to reduce civilian pressure on the engineering industry.² After Dunkirk, the restrictions were drawn progressively tighter in order to reduce civilian demands for materials, labour and space and in order to conserve stocks. Machinery licensing was extended to more and more types of machinery and the exemption limits were narrowed until a large proportion of the engineering field was covered.³ To match this increasingly severe control over the acquisition of capital goods, building for civilian purposes was for the first time effectively restricted. From October 1940 a licence on the authority of a government department was necessary for any civil building costing more than £500.⁴ This admittedly generous limit was lowered in April 1941 to £100.⁵

Civilian capital equipment was thus being deliberately reduced to a minimum. Restrictions were applied equally steadily to the supply of consumer goods. For the six months from September 1940, the quantity of home market sales of cotton and linen goods taken together was reduced to 37½ per cent. of the sales in the six months from October 1939; rayon sales were reduced to 66⅔ per cent. and sales of silk goods to twenty-five per cent.⁶ In the spring of 1941 these textile quotas were reduced still further—cotton, linen and silk to

¹ S.R. & O. 1941, No. 1100.

² See above, Chapter VI, Section (iii).

³ S.R. & O. 1940, No. 1363 (this raised the number of controlled classes from sixteen to forty). S.R. & O. 1940, No. 2179; S.R. & O. 1941, Nos. 1063 and 1610. From June 1940 to the end of December 1941 licences for machinery valued at £3½ millions had been refused. This amount would be equal to about 17,000 tons of iron and steel, and work for 10,000 men (two-thirds of them skilled) for one year. This does not make allowance for the machinery for which no applications were sent in in the belief that they would be turned down.

⁴ S.R. & O. 1940, No. 1678.

⁵ S.R. & O. 1941, No. 437; S.R. & O. 1941, No. 1596 tightened the control further. £100 became the limit for building work of all kinds that might be done on any property in any period of twelve months.

⁶ S.R. & O. 1940, No. 1760 and No. 1829. Sales of linen goods taken alone were not to exceed twenty-five per cent. of the standard period.

twenty per cent. and rayon to forty per cent.—while sales of woollen goods were limited for the first time at a quota of thirty per cent.¹ Supplies of miscellaneous goods were cut from December 1940, with the quotas varying according to essentiality—twenty-five per cent. for, say, furs, fifty per cent. for pottery and a quota as high as 66⅔ per cent. for mattresses.² Concessions were sometimes necessary. Some traders concentrated their quotas on the least essential part of their trade, hoping to blackmail the Government into licensing additional supplies for any purpose that might be considered remotely essential. And it was found necessary to withdraw from control some highly essential goods such as blackout material and to grant quota-free supplies to consumers such as hospitals and the police.³ But in spite of such easements the restrictions were decidedly drastic.

The restrictions on civilian industry and on supplies for the home market kept well in step with the needs of war. The Board of Trade, which was the department mainly concerned, was anxious to free as much labour, materials and premises as possible for war production. Indeed, towards the middle of 1941 it was becoming clear that the policy of wholesale restriction had its limits and that these limits, even if they still lay ahead, were already coming into sight. At the end of May 1941, the President of the Board of Trade was warning his colleagues that there was little room for further restrictions on textiles. The Board was by now seriously concerned lest the restrictions already imposed might lead to severe hardships for the civilian population. Again, the outcry that arose in the summer, when the Ministry of Labour started general withdrawals of women workers from civilian industries, was a warning signal.⁴ And the instruction sent out in September 1941 to withdraw from the clothing industry all women aged twenty to twenty-five caused an acute crisis in the supply of essential clothing. The clothing ration⁵ was only saved by the expedient of the 'designation policy'—by which the Ministry of Labour agreed to make no more withdrawals, without prior substitution, from firms with seventy-five per cent. or more of their capacity engaged on utility clothing.

Since the fall of France, the hand of restriction had fallen heavily on practically all civilian supplies. It had fallen too impartially. Although the manufacture of some patently unessential goods had sometimes been stopped by denial of raw materials, there existed up

¹ S.R. & O. 1941, No. 322 and No. 323.

² S.R. & O. 1940, No. 2031. The restrictions on these goods were by value instead of by quantity.

³ From the beginning of the Limitation of Supplies Orders, supplies (1) to other persons registered under the Order, (2) for government contracts, (3) for export, had been quota free.

⁴ See above, p. 308.

⁵ See below, p. 332-3.

to the end of 1941 no direct prohibitions on the manufacture of any goods, however dispensable they might be. On the other hand, the manufacture of some indispensable goods, as has been seen, was severely penalised. To some extent, different degrees of essentiality in civilian production were recognised by variations in the quotas issued under the Limitation of Supplies Orders. But no serious attempt was made to recognise some goods—saucepans, for example, or perambulators or cups—as essential to the life of the community and to protect from excessive contraction the industries engaged in making them. When, by 1942, supplies of these necessities had fallen below the danger mark and the trouble caused by the extreme shortages was out of all proportion to the labour and materials saved, it proved extremely difficult to expand these industries once more.

It is here that the policy of concentration of industry comes again into the story. As was shown in the previous chapter, that policy was initiated as the Board of Trade's major contribution towards combating the shortages of manpower and premises.¹ No considered verdict on the success achieved can be offered in this book.² But it is relevant in the present context to point out that the policy of concentration, however sound it was in principle as a remedy against the uneconomic dispersion of under-employed resources, had serious flaws in its application. In one or two indispensable industries, most notably cotton spinning, it was carried too far. On the other hand, much time and effort were wasted in concentrating some dispensable industries—carpet and piano production, for example—that were already very short of raw materials and were doomed to be prohibited almost completely within the following year.³ The manner in which concentration policy was linked to the Schedule of Reserved Occupations was also unfortunate. Apart from establishments with eighty per cent. of their capacity employed on government and export work, nucleus firms under the concentration schemes were the only 'Board of Trade' civilian firms to be entered on the Register of Protected Establishments; this meant that their employees in scheduled occupations were reserved at especially low ages.⁴ At a time when labour for civilian production was very scarce, it was wasteful to give the benefit of favourable deferment ages to unessential production merely because it was concentrated. Here, once again, the restrictions imposed on civilian production and supplies between Dunkirk and Pearl Harbour invite criticism not because

¹ See above, p. 310.

² The subject is treated at some length in *Civil Industry and Trade*, Chapter X.

³ See below, pp. 495-496.

⁴ These reservation arrangements were in force from April 1941 until December 1941, when they were superseded. See above, pp. 305-6 and 313.

they were too few or too small, but rather because they did not sufficiently discriminate between the luxuries and the necessities of war-time civilian life.

Throughout this crucial period of the war, many controls were busy weaving the garment of hardship which was to fall upon the nation's shoulders. Can we now sum up the degree of hardship which the nation endured in 1941 and assess its significance in the war effort? We naturally look to the official calculations of national income, but as we have already seen, the technique of these estimates is not yet sufficiently precise to give us the answers we are seeking.¹ Any attempt to say how much of the increased war effort was secured through a rise in the national income, how much through living on capital and how much through a reduction in current consumption must necessarily rest in large measure on guesswork. All three processes were, however, happening.

The rise in the real national income (as distinct from the inflated money figures) cannot be precisely stated; but its main causes are clear. It was due to longer hours of work and an increase in the labour force. Where the unemployed were absorbed it was wholly to the good, but for the rest the increase meant less leisure, more fatigue, interrupted careers and broken retirement, while home life became more difficult as women went into the factories.

No statistical uncertainties can hide the immense proportions of the nation's disinvestment in 1941.² In the current prices of that year the United Kingdom was running down its capital equipment and stocks at home by over £350 millions; disinvestment and borrowing abroad came to nearly £820 millions. These large sums accounted for practically one-third of the total cost of the war in 1941. They involved war-time, and still more severe post-war, hardships. Britain would face the peace with an alarming balance of payments problem, with an acute housing shortage and with the machinery of her civilian industries in bad repair.

The country was not mortgaging its future in order to preserve an unjustifiably high standard of war-time life. According to the national income estimates, personal expenditure on consumers' goods and services (at pre-war prices) fell by fourteen per cent. between 1938 and 1941; thereafter the statistical changes were slight, for in 1943, at the peak of mobilisation, personal expenditure at pre-war prices was sixteen per cent. less than in 1938. The reductions fell, of course, unequally upon different groups of goods and services.³ In 1941, personal expenditure on food, for example, was nearly twenty per cent. less than in 1938, for household goods it was forty-three per cent.

¹ See above, p. 153.

² See Table I (a), on p. 199.

³ See Table I (b) on p. 200.

lower, for clothing thirty-eight per cent.¹ and for private motoring seventy-six per cent. On the other hand, expenditure on beer, tobacco and entertainments had risen. Statistics do not, however, tell the whole story. They do not allow for restrictions on choice, for decline in quality, for the crowded conditions on railway trains and all the other stresses and dilapidations of war-time life. The reduction in the standard of living should be considered in its real historical context—black-out and bombardment, overwork at home as well as in offices and factories, and above all the heartache and anxiety of families scattered far and wide.

(ii)

The Inflationary Gap

Civilian standards were falling sharply. The fall itself was a wholly inevitable evil but it contained within itself the seeds of more and greater evils, seeds which the Government must prevent from taking root. In particular, it was important that the Government should scotch the acute inflationary dangers of the day. For while the supplies of consumer goods and services were being drastically cut, personal incomes were rising, quite apart from any increase in wage rates. Unemployed and unoccupied men and women were being absorbed into employment and this, together with the transfer of labour to the munitions industries where money earnings were high, more than offset the movement of men into the armed forces where pay was relatively low. Various attempts were made to measure the problem. In March 1941, for example, the Economic Section of the War Cabinet Offices estimated the probable increase in incomes in the coming financial year as £100 million and the probable reduction in consumer goods and services at current prices as £400 million. About the same time Mr. J. M. Keynes in the Treasury was calculating that the increase in incomes would be at least £150 million and the reduction in goods and services at least £350 million. Precision in the calculations was impossible, but the rough estimates at least indicated the dimensions of the task. The Government was faced during 1941 with an 'inflationary gap' of about £500 million.

In a war on the vast modern scale, it is impossible to avoid inflation completely. During the 1939-45 war, if increases in the Government's war expenditure had been exactly matched by decreases in private expenditure, or if all the private incomes in excess

¹ This over-estimates the fall in standards, for the figure does not include the clothes of the armed forces, Civil Defence, etc.

of the quantity of consumer goods being produced had been drawn away, there would have been no depletion of stocks of consumer goods, no shop shortages or queues, no black markets or other haunts of profiteering, and no need for much of the elaborate price control administration. Such a state of perfection was inconceivable. Forward estimates of inflationary gaps and of the efficiency of the various methods of narrowing them were necessarily approximate. It was impossible, for example, to calculate the precise rate of transfer of men, materials and factories to war production, or the power of propaganda to encourage National Savings. Moreover, the time-lag in tax collection meant that increases in the Government's revenue could only take full effect some time after the increases in the Government's expenditure. The temporary gap must be filled by borrowing, some of which was almost certain to be inflationary.¹ Finally, some inflation was inevitable, because even in war-time money remained a powerful incentive which could not be ignored in the efforts to increase output and to transfer labour or, say, agricultural output to the most urgent tasks.

The Government could not then hope to escape inflation. But it was firmly convinced of the need to fend off the incalculable harm to morale and to the war economy that wild, uncontrolled inflation would bring. It was determined to keep the inflationary gap as near as might be within the limits indicated by the other need to smooth the mobilisation of the economy with money incentives. In the period under review, this was a difficult task. The policies that had been devised during the first six months of war were quite inadequate to withstand serious inflationary pressure. The Prices of Goods Act had been introduced as a simple and somewhat crude anti-profiteering measure and food subsidies as a very temporary expedient. Rationing had been considered only in relation to the stocks of a few staple commodities and the budget of April 1940 had proposed to raise less than half of the forthcoming year's expenditure from revenue. After France had fallen the pace of the war effort grew rapidly and more resolute measures became necessary. From the end of 1940, it became one of the chief functions of the Lord President's Committee to see that they were devised.²

In order to narrow the inflationary gap it was necessary both to limit personal expenditure and at the same time to hold the level of incomes reasonably steady, keeping a particularly close watch upon the notoriously vicious wages-prices spiral. We shall consider first the ways and means of restricting expenditure. However much money was spent, more goods and services for the civilian population could

¹ See L. Robbins: *The Economic Problem in Peace and War* (Macmillan, 1947) Lecture II.

² See above, Chapter VIII.

not be produced. Excess expenditure would simply ensure the depletion of stocks¹ and cause unfair distribution either through high prices or, if prices were controlled, through shop shortages which would favour people with leisure to stand in queues. Personal spending could be limited by three methods. Income could be taxed away, or it could be saved, or it could be frozen by rationing schemes. The Government relied upon a combination of all three.

Increases in taxation followed hard upon the change of government in 1940. The rate of war expenditure, indeed, was by now rising rapidly—from a weekly average of £33 millions in April to £52 millions in June. When the Chancellor of the Exchequer introduced a new budget in July², he calculated that war expenditure would be not the £2,000 million postulated in the April budget but £2,800 millions. He accordingly proposed to increase the standard rate of income tax by 1s.,³ and the reduced rate by 9d.,⁴ and to increase surtax, estate duty and duties on beer, wine, tobacco and entertainments. The time had also come to introduce the purchase tax already put forward in the April budget. The Chancellor hoped to meet the Labour Party's opposition to it by exempting children's clothing and by adopting two rates of tax—the lower for essential articles and the higher for luxuries and superfluities.⁵ Moreover since May, the Excess Profits Tax had been increased to 100 per cent.⁶ All these impositions seemed severe indeed to the taxpayer, but they were not yet heroic enough in relation to the country's economic need.⁷ Even in a full year, the increased taxes would only raise £279 millions,⁸ that is, thirty-five per cent. of the £800 millions increase in war expenditure. The Stamp Survey pointed out that inflationary borrowing to meet a deficit of these proportions was unavoidable. Yet the July estimates for expenditure would have meant virtually no increase above the rate of expenditure reached in September 1940; war expenditure turned out to be over £400 millions greater than these estimates.⁹

But the July budget was only an interim one and its figures were necessarily provisional. It had scarcely been delivered before the

¹ Where goods were covered by the Board of Trade's Limitation of Supplies Orders, supplies of goods from wholesalers to retailers were controlled and only retail stocks could be freely and quickly depleted.

² H. of C. Deb., Vol. 363, 23rd July 1940.

³ i.e. to 8s. 6d.

⁴ i.e. to 5s. 0d. The reduced rate was chargeable on the first £165 of taxable income.

⁵ The lower rate was one-sixth of the wholesale price and the higher rate one-third.

⁶ See above, p. 163.

⁷ For contemporary comment, see H. of C. Deb. Vol. 363, July 23rd, 24th; Vol. 364, 6th August; *The Times* (24th July 1940); the *Economist* (27th July 1940).

⁸ In the current financial year, 1940-41, they would raise only £126 millions.

⁹ This increase was slightly offset by a reduction of £20 million on other expenditure and revenue was £49 million higher than the estimates.

minds of the Treasury were at work considering the more drastic measures the situation demanded. Suggestions for novel taxes abounded, but all were beset by some difficulty, whether administrative, political or economic. And after all, if income tax was not exhausting taxable capacity as thoroughly as financial needs required, why not simply stiffen it? This was what the Chancellor decided to do in his budget for April 1941.¹ The 'standard' rate of income tax was increased from 8s. 6d. to 10s. and the 'reduced' rate from 5s. to 6s. 6d. while the earned income relief and personal allowances were reduced. The principle of deferred pay, which Mr. J. M. Keynes had been urging since November 1939,² was in effect accepted; for the extra sums paid by taxpayers through the reduction of allowances were to be treated as post-war credits. These proposals would create 3½ million new taxpayers.

The increases in taxation would contribute about £250 millions to the revenue.³ But £500 millions was the estimated gap between Government domestic expenditure on the one hand and on the other hand revenue at 1940 rates of taxation, plus institutional savings, plus capital funds released through disinvestment, plus personal savings at the current level. The proposal to fill just half this gap by taxation was accepted as a valiant effort to keep the national economy steady.⁴ But could not taxation be imposed to close the whole of this gap? The difficulties would, unfortunately, be immense. Indirect taxation could not be increased to levels sufficiently penal without falling heavily on semi-necessities, and this would be socially inexpedient. If direct taxation were raised beyond a certain point, people with heavy standing obligations—such as rents, insurance, school fees or contributions to cultural enterprises—would supplement their income by selling capital assets.⁵ Moreover, even in war-time, such taxation might reduce the will to work.⁶ Succeeding war-time budgets did not in fact attempt to raise income tax above the 1941 level.

The budgetary and the inflationary gaps could not therefore be closed by taxation alone. The Chancellor must still rely quite heavily

¹ H. of C. Deb., Vol. 370 (7th April 1941).

² In *How to Pay for the War*, see footnote on p. 165.

³ Taxes were still collected on the previous year's, not current, income. The yield in 1941-42 from the increased taxes would therefore be only £150 million, but it might be assumed that taxpayers would save the additional £100 million against their tax liability. An additional £250 million of revenue would bring total revenue in 1941-42 to slightly over fifty per cent. of the Government's estimated domestic expenditure. For figures of the proportions of government expenditure met by revenue see Table I (d), p. 200.

⁴ For contemporary comment see H. of C. Deb., Vol. 370, debates of 7th, 8th, 9th April 1941; *The Times* (8th April 1941); the *Economist* (12th April 1941).

⁵ It was felt that this point might have been passed in the 1941 Budget. For example, a married man with two children and a gross income of £1,000 paid £167 direct tax after the last pre-war budget and £351 after the 1941 Budget.

⁶ See L. Robbins, *op. cit.*

on voluntary saving. Saving could act as a buffer between the national financial need and the infinite variety of personal circumstances and commitments. Saving for post-war days would be a war-time incentive. At the time of the April 1941 budget, new personal savings of from £200 millions to £300 millions were needed. Opinions differed about the possibility of encouraging new 'genuine' savings on this scale in the face of the steep increases in taxation. Certainly, the powers of the National Savings Movement in organisation and propaganda were severely tested. Although the outward show of the savings campaign was sometimes misleading,¹ there lay behind it a great drive in homes, offices, factories and schools to increase the saving habit.

Taxation and savings together were, then, curtailing personal spending. The third method of cutting down expenditure was by rationing and other restrictions on buying. The purchase of capital goods was directly limited by the machinery licensing and building licensing systems which have already been discussed. The rationing of personal expenditure on consumer goods and services was a much more complex process. Sometimes, enthusiasts expounded ideas for a siege economy where the State would feed and clothe not only its armed forces but its citizens.² This principle, with the supersession of money payments by administrative action which it would involve was clearly unthinkable in a war that was to drag on for five more years. Certainly, it was never even considered within government circles.

The attempt to find some universal form of rationing met with failure. The possibility of a total value ration for expenditure was mentioned, but it never developed into a practical issue. For how was 'expenditure' to be defined? If it embraced less than all goods and all services, excess money incomes would spill over into the unrationed field. But how could it embrace them all? The needs of a population of forty odd millions vary so widely that an average expenditure ration for all goods and services must be grossly inadequate for some and over-generous for others. Again, would the ration be a flat one or graded according to income? A flat ration would give no reward for effort. Rationing according to income would simply be compulsory savings disguised in immense administrative complexities.

Comprehensive rationing of expenditure was therefore impracticable. Instead, the Government could only hope to extend the rationing of food and essential consumer goods and guard these commodities from the impact of excess money incomes. The money

¹ e.g. the emphasis laid in 'War Weapons' and 'Warships' weeks on the total sum raised, irrespective of the source of the savings.

² See e.g. H. of C. Deb., Vol. 364 (7th August 1940); *Economics* by F. Benham, 3rd Edition (London 1943), Chapter XXXI.

incomes would not be sterilised, but they would be diverted to other outlets where high prices or shop shortages did not greatly matter. Moreover, even this limited rationing might help to solve the fundamental financial problem. For people whose basic needs were being met might well prefer to save their surplus income, rather than to spend their scanty leisure hours in queues or pay patently absurd prices for uncontrolled goods.¹

As shortages grew during the winter of 1940-41, the extension of consumer rationing became increasingly urgent. There were, however, many goods that could not easily be included in a rationing scheme. Some, such as beer, were excluded for reasons of revenue; others—for example second-hand articles—presented too many administrative difficulties; for others, especially durable household goods, consumers' needs were too irregular; luxuries there was no need to ration. But there still remained a large field of expenditure where rationing was needed to prevent unfair distribution. The need for action was greatest in food and clothing.

The deterioration of food supplies in the winter and spring of 1940-41 has already been described. Conditions became worse when there was large scale evacuation and when the Ministry of Food, in response to public clamour, departed from its principle that price control must be accompanied by control of supplies and distribution. Housewives in the towns were bewildered when onions, rabbits, turkeys and home-produced eggs disappeared out of the shops or under the counter. When in January 1941 the Ministry of Food made a price standstill order for a score or so of groceries, these too became very elusive.² The housewives insisted that something should be done.

The Treasury and the economists in the War Cabinet Offices felt that something comprehensive was needed. They urged that rationing of individual foods or groups of foodstuffs would not go far enough and that all food consumption should be rationed by value or by the German 'points' system. In the Ministry of Food, however, a new committee, set up to undertake a study of the distribution of unrationed foodstuffs, busied itself with hatching schemes for dealing with specific foods. Only two of these schemes were actually put into practice—a straight ration for cheese and a loose scheme for improving the allocation of preserves.³ In its final report in June 1941, the committee in effect rejected any system for rationing food consumption as a whole either by value or by points. By then, however, the Lord President's Committee was growing restive. It had agreed in

¹ These tendencies would vary with the pre-war history of various groups; for example, the population of pre-war depressed areas now employed in shipyards or government factories would want to replenish their houses before they began to save.

² See below, p. 334.

³ This was a failure and had to be replaced by a straight ration.

March that a wide extension of rationing was necessary. In April, the Economic Section had expounded the desirability of a value or points scheme for food. When, therefore, the Minister of Food presented the advice of his committee on unrationed foodstuffs, it was roughly handled. The Lord President's Committee disliked the principle of piecemeal rationing and the proposals to deal with particular foods only as difficulties arose. These methods would leave purchasing power to spill over on to unrationed foods, thus causing maldistribution, rising prices and increasing public discontent. The Minister of Food was asked to reconsider his rationing plans.

At the Ministry of Food the economists from the War Cabinet Offices urged the merits of points rationing upon administrators and trade experts, who in turn preached the advantages of group rationing. Points rationing was a system that would limit total demand for the foods covered by it and also roughly equalise the supply and demand for a large number of foods by a points price system. No registration would be required and consumers would be given no entitlement to any particular commodity. Group rationing would mean registration with retailers for groups of foodstuffs (for example, 'canned meats' or 'oatmeal and breakfast foods') with an understanding that the ration would be honoured, even though the shopper would be entitled not to a particular food but to one of a number. Arguments were marshalled on both sides. It was alleged against the points scheme that points values could not be varied rapidly and accurately, that there would be no certain basis of allocating supplies, that there were not enough stocks to cushion demand, that shopping delays would be intolerable, that the difficulties of producing, distributing, cutting out and counting the points coupons would be appalling. But the very great merit of the scheme was its flexibility. This was in marked contrast with the group rationing scheme which would favour the larger shops and would necessitate six new registrations by consumers, far more regimentation of retailers and consumers and stringent control over a large number of miscellaneous manufactured foods.

The Minister of Food, guided by the opinions of almost all his advisers, proposed nevertheless to adopt the group system. The controversy was then carried to the Lord President's Committee. Feeling there ran strongly the other way and after reconsideration the Minister of Food agreed to experiment with points rationing of canned meat, fish and beans; if the experiment proved successful he would extend it. The practical difficulties of launching the scheme were indeed great. A fresh ration book must be made and distributed, the mechanism for passing the coupons back must be settled, there was the initial schedule of points prices to be drawn up, and stocks had to be built up in the shops. But the arrangements were made

with only minor hitches, and when points rationing began on 1st December the public's approval was instantaneous. The Government had achieved one of its big home front successes of the war.

By the time the points scheme for food was ready, a points system of clothes rationing was already working well. Preparations for it had gone much more smoothly than for food. By November 1940, the Board of Trade's Limitation of Supplies policy had created distribution problems which threatened to become still more serious. The country as a whole was living on stocks in the shops and the stocks themselves were badly distributed. For, in spite of an unprecedented internal migration of population, manufacturers and wholesalers still tended to allocate their quotas according to pre-war sales. Bombing inevitably brought many local shortages to the surface—winter clothing, for example, in Southampton, suitcases in Cardiff. The Board of Trade hoped to keep a firmer hand on distribution by establishing a market research organisation; at the same time, however, its thoughts were turning to consumer rationing.

The discussions about rationing that began in November 1940 were fertile in suggestions. Value rationing for goods that were particularly scarce—hosiery, kettles and pottery for example—was one proposal, a value ration of £13 a year to cover everything except food, drink, tobacco and fuel was another, while the economists in the War Cabinet Offices suggested a points system. Value rationing would make the passing back of coupons to suppliers almost impossible and would kill higher grade trade. In the end, therefore, the points system was adopted. But the difficulties of bringing household goods into an annual points ration were so great that the scheme had to be confined to clothing and footwear.

In February 1941, the Lord President's Committee authorised the Board of Trade to go ahead with its scheme. Administrative preparations were complete by May and the President of the Board of Trade was anxious to launch the scheme on 4th June. For the textile position was getting worse; supplies of wool and cotton for the civilian trade were now down to twenty per cent. of the normal amount. It would still be possible under the proposed allocation of points for people in the lower income groups to buy as much as or even more than they usually bought in a year; but without points rationing there was danger that at the first signs of shortage—and they could not be long delayed—panic buying would begin and the richer people would clear the shops. Despite the gravity of this danger, doubts remained almost to the end whether or not the rationing scheme and the date for launching it would be finally authorised by the War Cabinet. The President of the Board of Trade was invited to consider the possibility of increasing supplies of clothing on a scale sufficient to make rationing unnecessary. But this was

scarcely the moment for diverting an extra 200,000 tons of raw material and 350,000 workers from the war effort in order to save the civilian some inconvenience. The War Cabinet's approval was finally given and on Whit Sunday morning the scheme was broadcast to the nation.¹ To have launched such a new and complicated plan in so short a time without technical advice² was indeed a remarkable feat of administration.

So far we have been considering methods for mopping up excess money incomes, and for restricting expenditure on food and clothing, the two main essentials of life. But attempts to narrow the inflationary gap by such means were doomed to frustration if wages were increasing all the time and if wages and prices were chasing each other. The gap would then grow progressively wider. Even amidst the disasters of 1940 the newly formed coalition Government was very conscious of these dangers. When Mr. Bevin became Minister of Labour he proposed to the National Joint Advisory Council that wages should be stabilised at existing levels, with four-monthly reviews by a national arbitration tribunal. But neither the T.U.C. nor the Employers' Confederation was ready for such a policy and the Government would not press it for fear of provoking industrial discontent. One important change was accepted: unsettled disputes were to be referred henceforward to a new National Arbitration Tribunal whose settlements would be binding. Strikes and lock-outs became illegal³ unless the difference had been reported to the Minister and he had not referred it to settlement within twenty-one days. Apart from this, the existing machinery of negotiation over wages and conditions of employment continued.

After this unsuccessful attempt at radical change, the Government built up a wages policy upon twin foundations—first, the trade unions' moderation and sense of responsibility; secondly, control of the cost of living. The first was a question of faith; the second required Government action. Control of the cost of living had really begun when food subsidies were introduced in December 1939.⁴ But these subsidies had been regarded as a temporary expedient to tide over an awkward moment. Not until August 1940 did the Government recognise that subsidies were 'here for the duration'. At the end of July 1940, an increase in home agricultural prices and a rise in shipping freights threatened to add 4·2 points to the cost-of-living index or to double the food subsidies, which then stood at £53 millions.

¹ The legal order was S.R. & O. 1941, No. 701.

² Secrecy had been essential to the scheme's success. A good deal of subsequent revision was therefore necessary on technical points following advice from trade sources. There was also much work to be done in issuing supplements, e.g., for children, industrial workers, uniform wearers, etc.

³ S.R. & O., 1940, No. 1217.

⁴ See above, p. 166.

If the index rose, many more cheap food schemes for the poorest classes would be necessary. Logically, this might be the most sensible course—inflation is intensified if subsidies benefit those who do not need them—but the close tie between wages and the index made it highly impolitic. The War Cabinet therefore agreed in August to the Ministry of Food's proposal that prices of essential foods should be kept down by subsidy 'in order to secure cheap food and to restrain a rise in the cost-of-living index figure and to prevent wages rising'. Luxury foods were to be allowed to find their own price level.

This decision left problems of definition. What of prices in the no-man's land between essential foods and luxuries, inhabited by such foods as coffee, sardines and custard powder? What of nutritious foods like oatmeal which did not enter the cost-of-living index? Was the index to rise gently or to be completely stabilised? Public opinion gave the answer to the first two questions—that the Ministry of Food's prestige was inseparable from the application of price control to all foodstuffs in common use. Maximum price orders were imposed on such foods as onions and rabbits and the Ministry of Food contemplated the perplexing task of controlling some at least of the 2,000 articles forming the wholesale grocer's stock in trade. A stand-still order¹ was temporarily issued, freezing the prices of some twenty foods at the December 1940 level, and during 1941 these and many other foods were included in specific maximum price orders. As for the future course of the index, the Inter-departmental Committee on Food Prices urged that it should be pegged. They thought this would be worth while even though subsidies rose much higher. Some of the expenditure moreover might be recouped from profits on luxury foodstuffs and the subsidies could be rearranged to save the Exchequer money. These views at length prevailed upon the Treasury and they were put into effect for food from December 1940 onwards. The food index rose from 114 in June 1940 to 125 in December; it fell to 122 by March 1941.²

But food did not comprise the whole cost-of-living index. The fuel index rose from 116 in June 1940 to 119 in March 1941; this was partly through wage increases and partly through measures to help the coalfields that were suffering an exceptional loss of trade. Most alarming of all, however, were the clothing prices, which leapt from 137 in June 1940 to 155 in December and to 168 in March 1941. The Prices of Goods Act was a quite inadequate check upon the scarcity prices which clothing manufacturers, wholesalers and retailers were charging. And price policy had not been sufficiently advanced in the autumn of 1940 to prevent a purchase tax on clothing which was equivalent to a three per cent. rise in the cost-of-living index.

¹ S.R. & O., 1941, No. 23.

² For the indices in this and the next paragraph, 1st September 1939=100.

Clearly then, food subsidies alone were not enough to control the cost of living. In February 1941, the Lord President's Committee directed that it must be consulted before any change was permitted in the prices of a wide range of essential goods and services. But a general price policy was not really defined until April 1941, when the Chancellor announced in his budget speech¹ the stabilisation policy. His statement is worth quoting fairly fully:

There is [the] prospect [he said] of a continuing further rise in the cost of living unless the Exchequer is prepared to undertake a much greater burden. If this rise were to occur it might lead to further rises in wages and other repercussions . . . I am prepared to carry a considerably increased burden on the Exchequer in order to prevent or minimise the impact of increased costs, particularly of imports and of transport, on the prices of essential goods and services, apart from any increases in their prices rendered inevitable by further increases in wage rates.

The Chancellor hoped to prevent any further rise in the cost-of-living index itself above the current range of 125-30. He proposed to subsidise shipping charges, to review railway rates and to keep close watch on coal, gas and electricity charges. Attempts would also be made to prevent substantial increases in the prices of other articles in common use. This stabilisation policy was put forward in the hope that wages could be held at about their present position. It would have to be abandoned if wage rates persistently tended to rise.

The immediate onus of keeping the cost-of-living index stable fell upon the Ministry of Food. There were still wayward items in the food index not yet under control—notably fish and eggs;² but the stabilisation policy would have been impossible if control over food supplies and distribution had been less thorough. As it was, the total index could only be kept stable by manipulating food prices while other departments strengthened their price controls. The price of clothing was the worst offender; the clothing index rose from 175 in May 1941 to 191 in December 1941; the price of sugar then had to be reduced by 1d. a pound to keep the total index stable. By then, however, schemes for controlling clothing prices were at last in hand.

Before the stabilisation policy was announced, the Lord President's Committee had agreed that new price control legislation was necessary to supplement the increasingly apparent deficiencies of the Prices of Goods Act.³ The Board of Trade was to be given power to fix basic prices and maximum prices and margins, to deal more rationally with the effects of decreased turnover on prices and to appoint inspectors. Powers were also added to fix charges for services, to regulate trade in second-hand goods by the registration of dealers

¹ H. of C. Deb., Vol. 370, Cols. 1321-1322 (7th April 1941).

² Prices of eggs and fish were controlled in July 1941.

³ See above, p. 158.

and to restrict transactions between intermediaries which resulted in increased prices. At the end of July the Goods and Services (Price Control) Act embodying these powers became law.¹ The new Act opened up wholly new possibilities of checking the rise in the prices of non-food goods and services; but the old Prices of Goods Act still applied to all price-regulated goods which were not brought under the new Act.² The new Act was an enabling Act, so that its contribution to the control of prices could only be judged in the light of the price orders made under it. The Act's most important feature was the power to fix maximum prices and margins. This was impossible without clear specifications of the goods concerned and this in turn meant control over production. Price policy and production policy had become closely intertwined.

This was quickly made clear by the example of clothing, the first testing ground for the new Act. In May 1941, the President of the Board of Trade had regarded cheap standardised clothing and clothes rationing as alternatives, of which rationing was infinitely the preferable one. But in spite of rationing, cheap clothing of reliable quality remained scarce and the clothing index still mounted. Various schemes were considered. The Government might buy civilian clothes for distribution through trade channels, or buy cloth and resell it to clothing manufacturers who would make it into prescribed clothing. Or clothing manufacturers might be directed what to produce, or raw material allocations might be used to ensure the production of prescribed cloth for prescribed clothing. The first three schemes were rejected on administrative grounds and raw material control because it was too remote. Instead, a plan emerged to encourage manufacturers to produce particular garments from particular cloths at prices to be clearly specified at each stage of production and distribution.

This was the birth of the 'Utility' policy. It was introduced by an Order which instituted a double system of supply quotas—a very small general quota and a much higher 'special' quota for utility cloth and clothing.³ This method of control was abandoned later in favour of direct control of production. But certain principles of utility clothing policy remained unchanged through the war. Utility clothing in the sense of coats, suits, dresses and underwear was never standardised. The specifications were drawn up for cloth; they were concerned with size, weight and weave of material and left much scope for variety in colour and finish. The Board of Trade specified the garments into which utility cloth was to be made and the garments

¹ 4 and 5 Geo. 6, c. 31. The Bill passed through Parliament with remarkably little discussion of the general principles or consequences of price control.

² The Lord President's Committee was informed that the new powers would be used as sparingly as possible.

³ S.R. & O., 1941, No. 1281.

had to be clearly marked with the utility mark; but the Board did not regulate the cut or style or finish of, say, women's dresses or girls' coats. The austerity restrictions on style—a maximum number of pockets, pleats and so on—were introduced later quite independently of the utility policy. For certain special kinds of clothing—knitted goods and hosiery, corsets and handkerchiefs, for example—specifications were drawn up for the garments themselves. The important point about utility clothes of all kinds was that their prices had to be kept within certain defined price limits. In 1941, the first specifications and their maximum prices were compiled somewhat hastily. This haste meant that the specifications were too wide for a really rigid price control and that prices had to be fixed on rather slender evidence. The desire to encourage utility production, moreover, counselled generosity in fixing margins. But time and experience would make these faults remediable.

Utility schemes and especially the provision of good, attractive clothes at prices the public could afford were to prove a great success. But utility clothing did not appear in appreciable quantities until the spring of 1942. Meanwhile a short-term policy was needed to keep clothing prices in hand until the effects of rationing and the utility scheme made themselves felt. The President of the Board of Trade would not contemplate a general price standstill order since this would drive production to expensive clothing. A partial remission of purchase tax on cheap clothes distinguished only by their prices was impossible and the Chancellor would not remove the tax from all clothing. In the end, the Board of Trade simply freed for a few months from quota control the cheaper kinds of cloth and clothing; this did not have time to influence production, but it helped by releasing stocks.

Throughout 1941 the Government had struggled to keep the cost of living down. One minor aim of the policy was to help the poorer classes; but the main purpose was to keep wage-rates steady. Surely, therefore, contemporary critics were rather wild in their persistent cry that the Government had no wages policy.¹ The policy certainly existed. But was it successful?

Claims for increases in wage rates were normally advanced for three different reasons—that the industry concerned could support an increase, that comparable work in other industries received higher rates, or that the cost of living had risen. Until the stabilisation policy was announced, the rising cost of living had been by far the greatest stimulus to wage rate increases. In 1939 the wage rates of about 1½ million workers were tied to cost-of-living sliding scales, and the adoption of this system during the war by important industries such

¹ See e.g. the *Economist* article, 'No Policy for Wages' (26th July 1941). Also H. of C. Deb., Vol. 368, Col. 221; Vol. 371, Col. 1630; Vol. 374, Cols. 1064–1066.

as iron and steel and cotton brought the number up to about 2½ millions. Moreover, in other industries where wages were fixed by negotiation, applications for increases had been almost wholly based on the rise in the cost of living. After the adoption of stabilisation, the cost of living virtually disappeared as a reason for increases in wage rates. And until at least the end of 1941, the Government's faith in the moderation of the trade unions certainly seemed justified.¹

Let it not be thought, however, that the Government bore its wages policy lightly. Ministers often re-examined it critically and anxiously. The Lord President's Committee reviewed it soon after the announcement of stabilisation. In these discussions, the Minister of Labour argued that any attempt to reach an agreement to stabilise wage rates would be unwise; for good industrial relations depended upon the unions' authority in the day-to-day adjustment of wages and conditions. Freedom of opportunity to make claims and to have them discussed, said Mr. Bevin, was essential to industrial peace; it would, moreover, be a dangerous thing if the Government made the independence of statutory wage-fixing and arbitration bodies suspect by offering them 'guidance'. The Lord President's Committee found these arguments sound but wished to publish some statement which might dispel some of the fog of misunderstanding about the Government's wages policy. The statement should be in wide terms, covering not only wages and price stabilisation but general economic policy and the fair distribution of goods. The Minister of Labour's misgivings about publishing such a statement proved justified. When a draft was submitted to the T.U.C. their reaction was that they had heard all this before from Lord Simon in December 1939. The statement was therefore mutilated to avoid the least suspicion of direct government control of wages, and when it was published it seemed unfortunately lame.²

In June 1941, then, the Government had reaffirmed its wages policy. By December there were deeper heart-searchings about it. So far the increases in wage rates were indeed reasonable; but the War Cabinet was anxious about new substantial claims that were being made. Firm and direct methods of wage control were earnestly considered. There seemed to be two possibilities. One was to prohibit wage increases completely. But wages had risen very unevenly and there would be irresistible demands to raise the very low wages and to adjust rates in individual industries. It would be impossible to keep rates completely static and debates on individual wages in the House of Commons would lead to undesirable political competition. A wage stop would, moreover, raise strong political feeling and might stir up

¹ See Table 1 (f), p. 201, for comparison of wage rates and cost-of-living index.

² *Price Stabilisation and Industrial Policy. Statement by His Majesty's Government. Cmd. 6294* (July 1941). A critical examination of the T.U.C. attitude would be a large historical task.

the issue of nationalisation. The alternative to a wage stop was to restrict collective bargaining through a periodical general review of wages by an independent tribunal. But why should this make the frequency or range of wage increases less than under the existing system? Such a change would undermine responsible trade union leadership. Worst of all, the destruction of voluntary negotiating machinery might bring industry into direct conflict with the State.

The catalogue of these dangers seemed a fearsome recital. If a complete breakdown of stabilisation and an income inflation beyond hope of control by rationing or taxation appeared imminent, the dangers might have to be risked. But at the end of 1941 the situation was nowhere near that point, and the Government preferred to accept a mild degree of inflation rather than plunge into very deep and dangerous waters. Admittedly, it was illogical to continue to treat the determination of wages as a private affair between employer and employed with which the Government had no concern so long as there was no stoppage of work; the Chancellor found reassurance in the thought that Britain was a country where illogical arrangements were often justified by their results.

The Government was generally preoccupied, in its financial policy, with keeping inflation to a minimum; but, as 'the Dunkirk spirit' had by no means wholly superseded the power of money as an incentive, it also recognised that an increase in incomes was in many cases necessary to ease mobilisation and to secure an all-out effort and efficiency in production. This was clearly true of wages. Wage earnings were more important than wage rates in augmenting the volume of spendable income that threatened inflation. In July 1941 earnings were forty-three per cent. above the October 1938 level while wage rates were only eighteen per cent. higher.¹ To control earnings, however, would have been both administratively impossible and also most undesirable. Mr. Bevin stated flatly that he did not mind a bit how much a man drew, provided it did not come on the rate but on earnings. Apart from some anomalies such as high Sunday pay, higher earnings meant harder work. In some industries, the Minister of Labour did his best to guarantee maximum production by challenging managements and workers to turn over to payment by results.

It was also important that earnings should reflect the varying importance of industries to the war effort. The transfer of labour, especially while directions were used sparingly, would be hindered if essential industries did not offer higher earnings than unessential industries and a level of wages sufficient to attract women from home. The Government, having decided to leave wage negotiations to the normal industrial machinery, could not manipulate wage rates; it could only exercise remote control—and then only in a few cases—by

¹ Ministry of Labour earnings inquiry, 1941: *Ministry of Labour Gazette*, November 1941.

using its price-fixing powers. The stabilisation policy, however, helped to bring relative wage rates more in line with war-time needs. For until then, the increases in wage rates tied to the cost of living had generally been greater than the increases in the rates that were settled by direct negotiation. And the industries which had cost-of-living sliding scales were mainly those which must contract. By the end of 1941, the structure of earnings was on the whole well adapted to encourage men and women to enter the industries where they were most needed.¹ It had also been necessary to improve the wages in some industries which, though essential to the war economy, were notorious for their low pay; the most important cases were coal-mining² and agriculture.³

While industrial earnings were thus being adjusted to favour the 'war' industries, there was no similar improvement in the relative advantages of pay in the Services. The storm of feeling on this subject broke later in the war. In the last half of 1940 and in 1941 only small changes were made.⁴

Service pay, however, was primarily a social and political question, not an economic one. Military mobilisation was the one sphere of national effort where the money incentive was, by and large, irrelevant. In its controls over prices and profits, the Government had to make careful allowance for money incentives. The need to encourage efficiency and high output had somehow to be reconciled with the stabilisation policy and public suspicion of high war profits. The reconciliation was not always easy. There was for example the 100 per cent. excess profits tax. This had a strong popular appeal but its disadvantages swiftly became apparent. Even in June 1940 the Stamp Survey had found 'patriotism and peril curiously transient' as complete substitutes for the old incentives,⁵ and there was evidence of serious waste in production. Finally in January 1941 the War Cabinet agreed to maintain the 100 per cent. tax but to make twenty per cent. of it a post-war credit.

In management of the railways, on the other hand, the 1940 financial agreement provided considerable incentives to efficiency.⁶ Yet its implied promise of increased charges to match increased costs was clearly inimical to stabilisation. The Chancellor's stabilisation pronouncement, added to new proposals for war damage compensation

¹ See *Ministry of Labour Gazette*, November 1941.

² In May 1941, coalminers had pressed for a minimum wage first of 70s., and then 80s. (some workers were getting as little as 55s. a week). In order to discourage absenteeism, an extra bonus of 1s. a shift for full attendance was granted instead.

³ The national minimum agricultural wage was raised from 48s. to 60s. in November, 1941.

⁴ An increase in pay of 6d. a day from 1st September 1940, small increased family allowances from November 1940, improved war service grants and a post-war credit of 6d. a day from January 1942.

⁵ See above, p. 162.

⁶ See above, p. 162.

for public utility companies, made revision of the agreement essential. The only practicable alternative to the sliding scale of profits was a State guarantee of a fixed remuneration.¹ The Government hoped to replace the lost financial incentive to efficiency by reorganising the control of the railways.²

Through 1941 there persisted the problem of incentives for the marginal producer. As costs rose and the emphasis on stabilisation grew, the difficulty of fixing a single selling price for low and high cost producers became acute. Various arrangements embodying pooling schemes were devised. One example was in the iron and steel industry. In November 1940 it was decided to stabilise iron and steel prices, which had risen substantially since the outbreak of war. To keep all firms in production, a Prices Fund was established fed by credits from the Central Fund into which iron and steel levies were paid.³ A notional price increase was fixed quarterly on the basis of average costs in the industry, and heavy steel makers received this increase in respect of their sales to the extent that their profits fell below their pre-war standard. Additional discretionary payments could also be made to help firms which were in difficulties even after receiving these price increases. All steel firms could therefore be kept going without increasing the prices charged for iron and steel. But as the Select Committee on National Expenditure pointed out,⁴ apart from those firms which could earn more than their standard profits, there was a wide range within which it made no difference to a manufacturer's profit whether he worked at full efficiency or not.

The financial problems of raw material production were in the main settled between the Ministry of Supply and the Treasury. Agricultural prices, which raised similar questions of incentive, always caused much more difficulty and went for settlement to the highest levels, often to the War Cabinet itself. Chapter VI related⁵ how battle had been joined in June 1940 over the Minister of Agriculture's proposals for compensating farmers for wage increases and for providing incentives for increased food production. Interim prices had been agreed and the prices for the 1940-41 harvest had been left open for discussion on the understanding that they were to accord with national food priorities. But when the discussion began, this basic assumption was attacked by the Ministry of Agriculture, which

¹ Settling the appropriate figure caused some trouble. £39.4 millions per annum was a favourable pre-war average of railway earnings, but in 1940, increases in charges had lagged behind increases in costs and the new War Damage agreement was much less favourable to the railways. A fixed annual payment of £43 millions was therefore agreed.

² See above, p. 279.

³ The levies had operated before the war to equalise the cost of imported and home-produced raw materials. In November 1940 the Central Fund was turned over to public account.

⁴ Fourteenth Report of S.C.N.E. Session 1942-43.

⁵ See above, p. 160.

asserted that differential price inducements were unnecessary, unfair, provocative and futile; production of particular crops should be secured by administrative measures. In particular, the Ministry would not hear of a reduction in the price of fat cattle, which was being urged as necessary to stimulate milk output. But the War Cabinet, to whom the issue ascended, felt that farmers could not be insulated from all financial sacrifice. The new prices of August 1940 did not completely rearrange incentives but they did tilt the balance less in favour of oats, feeding barley and fat stock and less unfavourably to milk and potatoes. Moreover, the Government asserted its power to adjust prices downwards as well as upwards.

This settlement, apart from minor adjustments, remained until the winter of 1941 when the minimum agricultural wage rose to 60s. The Government then found itself in difficulties. For in November 1940 an announcement of the intensification of the food production campaign had been accompanied by a public pledge that prices 'would be subject to adjustment to the extent of any substantial changes in costs of production'. The Lord President's Committee had agreed that if the increase in wages were granted it would bring the pledge into operation. But how was the pledge to be construed? The Lord President's Committee did not agree with the Minister of Agriculture's view that all increases in costs must automatically be reimbursed to farmers, irrespective of the level of farmers' profits. And the level of profits proved considerably higher than the guesses of 1940; farmers' net incomes from controlled commodities had increased by some £38 to £44 millions in 1940-41 compared with 1939-40. The War Cabinet agreed with the Lord President's Committee that farmers' returns should be increased only by £20 millions, the estimate of the increased costs of wages; other cost increases were to be met out of the higher profits. At the same time, the Lord President's Committee called for more detailed inquiry into methods of inducing marginal production which might be less embarrassing than continually rising prices. When it came to distributing the increased returns between commodities, the old dispute was rekindled. The Ministry of Food wanted big price increases on milk and potatoes, the Ministry of Agriculture wanted them on pigs, fat cattle and sheep. A compromise agreed by the War Cabinet was rejected by the farmers, and by the time concessions had been made to them and the Ministry of Food's insistence on high milk prices was satisfied, the total sum which farmers might expect from price increases had reached nearly £24 millions. It seemed indeed that in any rearrangement of price incentives it was impossible to grant some commodities no price increase at all.

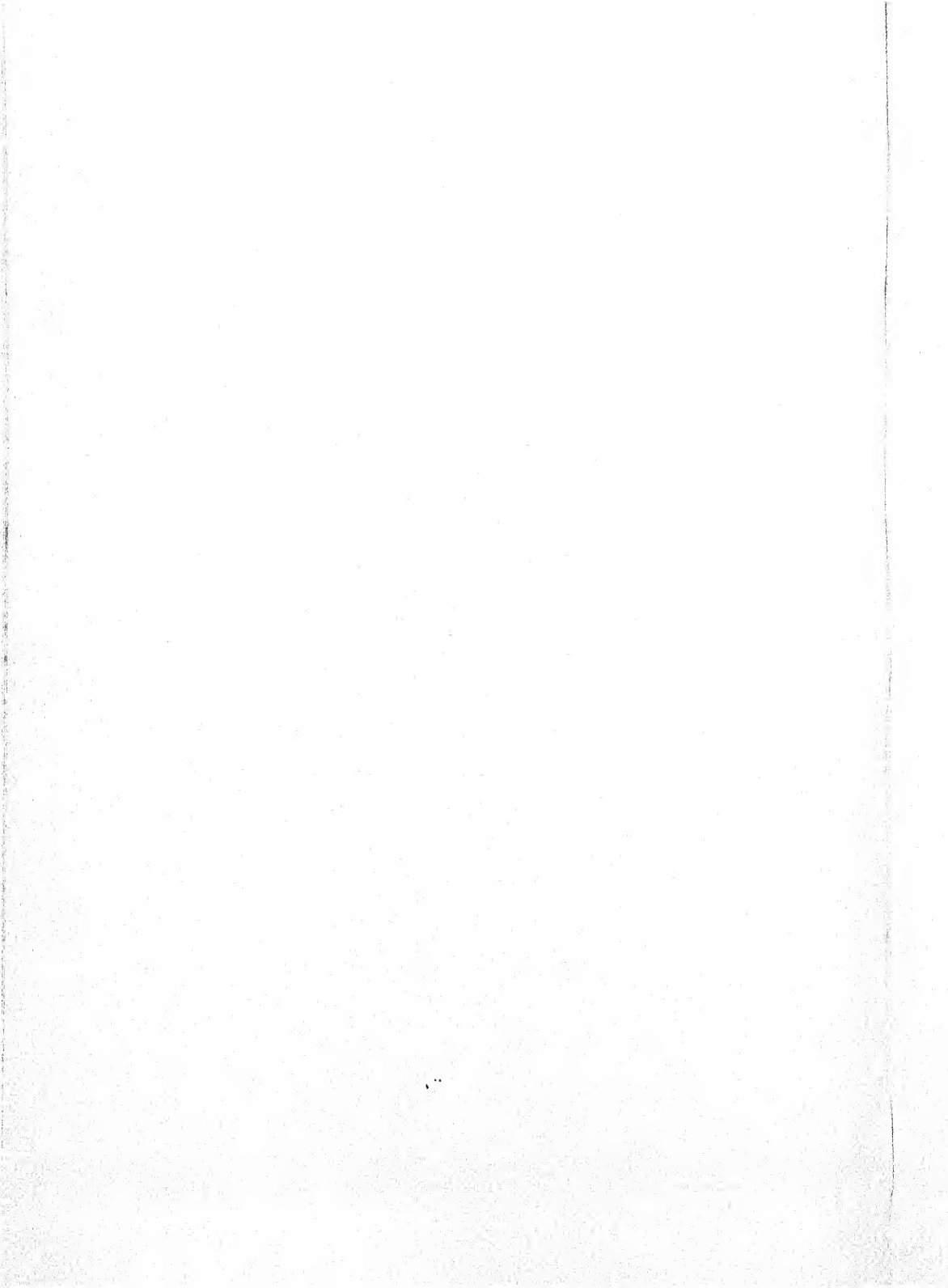
Money incentives, then, were a power to be reckoned with in wages and prices and profits policy. In some cases there were forces

working in another direction; fear of loss impeded the desire of individuals and businesses to fit in with the needs of a war economy. From time to time, the Government felt that the transfer of resources from peace to war would be aided if there was some form of government compensation for individuals and businesses suffering financial war losses. It seemed harsh doctrine to leave these losses to fall haphazardly upon their victims. The Government's policy was, broadly, to confine compensation to the direct effects of enemy fire. Practice, however, was not wholly consistent with this principle. An increase in the price of coal was authorised, for example, to cover compensation for mines suffering from loss of trade, and the Ministry of Food, in trying to preserve the pre-war structure of food importing and distribution, had sometimes fixed its payments in order to maintain pre-war levels of profit. But a suggestion of indirect government compensation for firms closed under concentration schemes was turned down; nucleus and closed firms were left to make their own arrangements. However desirable compensation for war losses might be in principle, the Government reluctantly felt that any attempt to meet the myriad claims would land them in difficulties beyond their powers to unravel.¹

To conclude: it is clear that as Britain's war effort rose steeply between Dunkirk and Pearl Harbour, financial policy had an important part to play. It had a heavy responsibility for keeping public morale sweet. And although the transfer of resources to war purposes was effected in large measure by direct controls, such as those over labour, materials and civilian production, financial policy could either ease or hamper it. The Government had a difficult course to steer. It must encourage an all-out effort with appropriate incentives, but it must restrict the volume of incomes chasing a small and dwindling supply of civilian goods. Sometimes the Government went too far to one side or the other; the financial incentives to the farmer, for example, were over-generous. But on the whole a good balance was struck. The nation put forth incredible efforts. And while there was certainly some inflation, it was confined within fairly harmless limits.² By the time Pearl Harbour was attacked, the British Government could claim to have learnt many of the arts of managing a war economy.

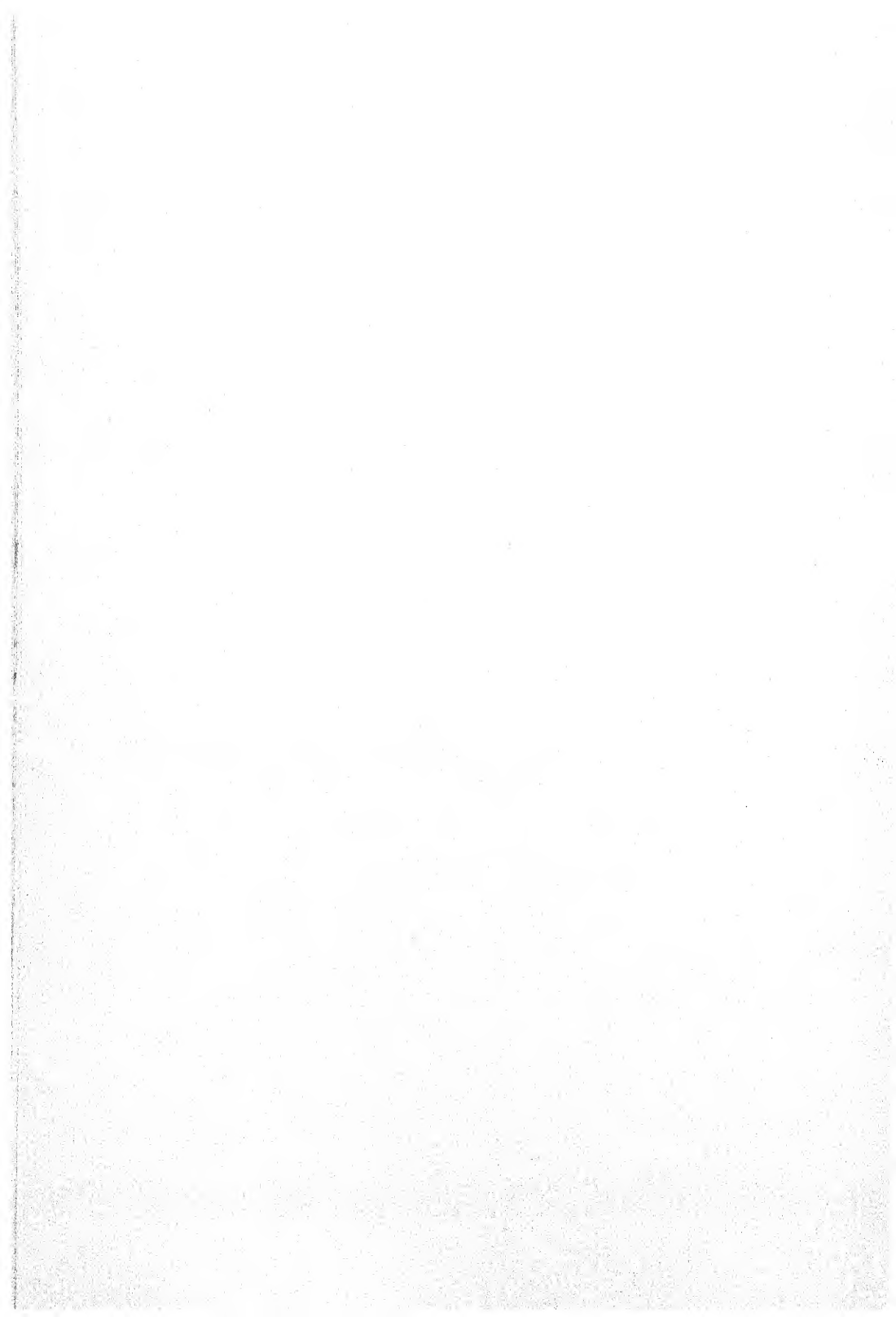
¹ H. of C. Deb., Vol. 367, Col. 24 (21st Nov. 1940). Statement by the Prime Minister.

² It is of course impossible to say just how much there was. But see the white papers on National Income and Expenditure, and Table I(a), p. 199. The increase of the national income during 1941 was probably larger than the increase in physical output, the value of personal expenditure had risen while consumption fell, tax revenue rose by more than the increase in tax rates. There was also some running down of private stocks—estimated by Mr. J. M. Keynes at about £150 millions in 1941; this was not immoderately large. The rise in prices and wage-rates was not extreme. Queues and the black market were by no means alarming.



PART IV

From Pearl Harbour to Normandy



Part IV. From Pearl Harbour to Normandy

STATISTICAL SUMMARY OF THE PERIOD¹

I. NATIONAL FINANCE

(a) National Income and Expenditure

	£ million										Percentages	
	1938	1941	1942	1943	1944	1945	1938	1941	1942	1943	1944	1945
1. National income	4,707	6,978	7,652	8,115	8,310	8,355	100	100	100	100	100	100
2. National cost of consumers' goods and services	3,713	4,006	4,164	4,188	4,452	4,886	79	58	54	52	54	58
3. Government ¹ current expenditure:												
i. War	327	3,643	3,945	4,452	4,481	3,827	7	52	52	55	54	46
ii. Other	440	497	528	522	536	532	9	7	7	6	6	6
4. Net capital formation at home	297	-352	-322	-367	-500	-15	6	-5	-4	-5	-6	-
5. Net lending abroad	-70	-816	-663	-680	-650	-875	-1	-12	-9	-8	-8	-10
6. Net national expenditure at factor cost	4,707	6,978	7,652	8,115	8,310	8,355	100	100	100	100	100	100

Figures for national income and expenditure are *net* in that they exclude sums allowed for depreciation and maintenance and are at *factor cost* in that they include subsidies but exclude indirect taxes.

Source: Cmd. 7371 and Central Statistical Office

¹ i.e. local government and national insurance funds as well as central government.

¹ See note at beginning of first statistical summary p. 75. The present summary covers the period from Pearl Harbour to the end of the war, instead of simply to D-Day.

(b) *Personal Expenditure on Consumers' Goods and Services at 1938 Prices*

£ million

	1938	1941	1942	1943	1944	1945
1. Food	1,287	1,036	1,086	1,061	1,120	1,136
2. Alcoholic beverages	285	287	267	270	274	297
3. Tobacco	177	196	206	204	205	225
4. Rent, rates and water charges	491	502	497	498	503	506
5. Fuel and light	197	205	199	187	193	198
6. Household goods	288	103	123	107	100	122
7. Clothing	446	275	273	247	275	279
8. Books, newspapers & magazines	64	61	63	67	73	77
9. Private motoring	127	30	17	8	8	25
10. Travel	163	148	174	186	188	215
11. Communication services	29	27	31	37	42	40
12. Entertainments	64	75	87	89	90	94
13. Other services	483	418	374	350	343	369
14. Other goods	177	131	109	110	113	120
15. Income in kind of the armed forces	17	98	106	136	152	146
16. Total of above items	4,295	3,652	3,612	3,557	3,679	3,849
17. Adjustment ¹	-7	19	28	34	27	72
18. Total	4,288	3,671	3,640	3,591	3,706	3,921

Source: Cmd. 7371 and Central Statistical Office

(c) *Average weekly Government War Expenditure: Exchequer Issues for Defence and Vote of Credit Expenditure*

£ thousands

1939 December	29,700
1941 December	87,800
1942 December	95,600
1943 December	82,400
1944 December	91,100

Source: Central Statistical Office

(d) *Central Government Expenditure, Revenue and Borrowing*

Calendar years	£ million			Revenue as percentage of expenditure
	Expenditure	Revenue	Borrowing	
1938	1,040	893	147	86
1941	5,052	2,172	2,880	43
1942	5,457	2,635	2,822	48
1943	6,047	3,139	2,908	52
1944	6,078	3,328	2,750	55
1945	5,583	3,293	2,290	59

Source: Cmd. 7371 and Central Statistical Office

¹ The figures relate as far as possible to expenditure met out of personal income including that of charities and other non-profit-making bodies as well as of individuals. The figures for individual categories relate to purchases in this country even when made by Dominion and Allied troops. On the other hand, they do not include consumers' expenditure abroad out of British personal income. Item 17 is a rough adjustment for these items.

(e) *Proportion of Personal Income Required to Meet Taxation*

£ million

	1938	1941	1942	1943	1944	1945
Personal income	4,884	6,508	7,200	7,721	8,072	8,411
Direct tax payments	439	770	879	1,145	1,328	1,394
Indirect taxes on consumption	611	1,045	1,199	1,282	1,294	1,359
Less Subsidies to consumption	-36	-137	-168	-188	-202	-249
Total tax payments out of personal income	1,014	1,678	1,910	2,239	2,420	2,504
Tax payments as a percentage of personal income	21	26	27	29	30	30

NOTE: The rise in the proportion of tax payments to private income was not all due to increases in rates of taxation; it also reflected the increased consumption of highly taxed goods and services—beer, tobacco, entertainments.

Source: Cmd. 7371 and Central Statistical Office

(f) *Prices and Wages*

	Weekly wage rates: estimated increase in all industries ¹ Sept. 1, 1939 which=100	Average weekly earnings in certain industries ² Oct. 1938 =100	Cost of living Sept. 1 =100	Price index of total consumers' expenditure 1938=100	Import prices 1938 =100	Export prices 1938 =100	Wholesale prices Aug. 1939 =100
1939 Sept.	100	—	100	—	—	—	108
1941 Dec.	123-124	146	130	Year 1941 =134	164	152	159
1942 Dec.	132	165	129	Year 1942 =143	179	178	164
1943 Dec.	137-138	179	128	Year 1943 =147	188	191	166
1944 Dec.	145-146	176	130	Year 1944 =150	195	197	170
1945 June	148-149	180	132	Year 1945 =153	N.A.	N.A.	173
1945 Dec.	152-153	174	131		195	194	173

N.A.=Not Available.

Source: Central Statistical Office

¹ Some small industries are omitted. Figures for wage rates relate to the end of the previous month in order to make them comparable with the cost-of-living index which relates to the beginning of the month mentioned.

² The figures represent the average earnings, including bonus, overtime, etc. and before deduction of income tax or insurance, in one week in January and July of each year. Administrative and clerical workers and other salaried persons are excluded.

2. MANPOWER

(a) *Total Population of Great Britain*

	Thousands				
	1939	1941	1942	1943	1944
TOTAL . . .	46,466	46,875	47,039	47,300	47,627
0-13 . . .	9,231	9,101	9,091	9,150	9,239
M. 14-64 } F. 14-59 }	31,923	32,245	32,259	32,285	32,386
M. 65 and over } E. 60 and over }	5,312	5,529	5,688	5,865	6,002
MALES . . .	22,332	22,600	22,656	22,770	22,975
0-13 . . .	4,672	4,615	4,614	4,648	4,698
14-64 . . .	15,887	16,140	16,140	16,155	16,261
65 and over . .	1,773	1,845	1,901	1,967	2,016
FEMALES . . .	24,134	24,275	24,383	24,530	24,652
0-13 . . .	4,559	4,486	4,477	4,502	4,541
14-59 . . .	16,036	16,105	16,119	16,130	16,125
60 and over . .	3,539	3,684	3,787	3,898	3,986

NOTE: (1) The figures have been given for Great Britain only, to correspond as closely as possible with the tables given elsewhere showing the distribution of manpower by industry. It should be noted however that in the manpower tables the figures for the armed forces include an unknown number of recruits from outside Great Britain (mainly from Northern Ireland and Eire) who are not included in the total population figures above.

(2) The figures for 1939 exclude men serving overseas in the armed forces and merchant navy (estimated at between 200,000 and 250,000). From 1940 onwards all members of the armed forces and merchant navy are included, whether at home or overseas. Prisoners of war in enemy hands are included in 1944, but are mainly excluded from earlier figures.

Source: Central Statistical Office

(b) *Distribution of Labour Force of Working Age in Great Britain*

(i)

Thousands

	June 1939	June 1941	June 1942	June 1943	June 1944	June 1945
Working population:						
Total	19,750	21,332	22,056	22,286	22,008	21,649
Men	14,656	15,222	15,141	15,032	14,901	14,881
Women	5,094	6,110	6,915	7,254	7,107	6,768
Armed Forces:						
Total	480	3,383	4,091	4,762	4,967	5,090
Men	480	3,278	3,784	4,300	4,500	4,653
Women	—	105	307	462	467	437
Civil Defence, N.F.S. and Police:						
Total	80	383	384	323	282	127
Men	80	324	304	253	225	112
Women	—	59	80	70	57	15
Group I Industries:						
Total	3,106	4,240	4,990	5,233	5,011	4,346
Men	2,600	3,140	3,285	3,305	3,180	2,891
Women	506	1,100	1,705	1,928	1,831	1,455
Group II Industries:						
Total	4,683	4,845	4,983	5,027	5,100	5,191
Men	4,096	3,856	3,763	3,686	3,710	3,762
Women	587	989	1,220	1,341	1,390	1,429
Group III Industries:						
Total	10,131	8,283	7,520	6,861	6,574	6,752
Men	6,387	4,524	3,943	3,430	3,232	3,368
Women	3,744	3,759	3,577	3,431	3,342	3,384
Registered Insured Unemployed:						
Total	1,270	198	87	60	54	103
Men	1,013	100	61	44	40	68
Women	257	98	26	16	14	35
Ex-Service men and women not yet in employment:						
Total	—	—	—	20	20	40
Men	—	—	—	13	14	27
Women	—	—	—	7	6	13

NOTE: (1) The figures include men aged 14-64 and women aged 14-59, excluding those in private domestic service. Part-time women workers are included, two being counted as one unit. The figures refer to Great Britain only, except for the armed forces which include an unknown number of volunteers from Northern Ireland, Eire, etc.

(2) Group I covers metal manufacture, engineering, motors, aircraft and other vehicles, shipbuilding and ship-repairing, metal goods manufacture, chemicals, explosives, oils, etc.

Group II covers agriculture, mining, National and Local Government services, gas, water and electricity supply, transport and shipping.

Group III covers food, drink and tobacco, textiles, clothing and other manufactures, building and civil engineering, distribution trades, commerce, banking and other services.

Source: Ministry of Labour and National Service and Central Statistical Office

(ii)

Thousands

	Mid-1939	Mid-1943	Mid-1945
Total Labour Force	19,750	22,286	21,649
Armed forces and Civil Defence	560	5,085	5,217
Supplies and equipment for the Forces	1,270	5,121	3,830
Group I Industries	1,070	4,310	3,132
Group III Industries	200	811	698
Manufactures for Export	990 ¹	252	410
Group I Industries	450	90	200
Group III Industries	540	162	210
Manufactures for the Home Market	4,555	2,373	2,580
Other Industries and Services	11,105	9,375	9,469
Unemployed	1,270	60	103
Ex-service not yet employed	—	20	40

Source: Central Statistical Office

3. SUPPLIES FROM ABROAD

(a) *United Kingdom External Disinvestment*

(as far as recorded: probably an underestimate)

	£ million					
	1941	1942	1943	1944	Jan.-June 1945	Total: Sept. 1939-June 1945
Realisation of external capital assets	274	227	189	143	63	1,118
Increase in external liabilities ^{2 3}	564	519	647	608	282	2,879
Decrease or increase (—) in gold and U.S. dollar reserves ^{3 4}	—23	—75	—150	—99	—32	152
Unallocated	5	3	3	11	16	49
TOTAL	820	674	689	663	329	4,198

NOTE: The figures given in the above table are those in Cmd. 6707 and are the only ones at present available. The totals given in Cmd. 7099 for the years 1940-45 are however slightly smaller so that the figures in the table will need slight adjustment throughout.

¹ In addition, it is estimated that in 1939 160,000 workers were producing coal for export; in 1943 to 1945, the number was about 12,000.

² Comprising banking liabilities less assets, and funds held in the United Kingdom as cover for overseas currencies, etc.

³ After deduction of outstanding liabilities to provide gold against sterling liabilities and of liabilities to convert U.S.A. holdings of sterling into dollars on demand.

⁴ Gold valued at 172s. 3d. per ounce fine and dollars at £1=\$4.03.

(b) *United States Lend-Lease to the British Empire*

\$ million

	1941 (March -Dec.)	1942	1943	1944	1945 (Jan.- Aug.)	Total
Ships (sail away)	65	195	1,078	540	229	2,107
Munitions destined for:						
United Kingdom	86	987	2,797	3,807	971	8,648
Rest of Empire and other war theatres	100	1,158	2,131	2,294	1,203	6,886
Other goods destined for:						
United Kingdom	576	1,404	1,782	2,405	1,275	7,442
Rest of Empire	10	227	436	583	390	1,646
Services	245	786	807	1,137	369	3,344
Total aid to British Empire	1,082	4,757	9,031	10,766	4,437	30,073
Aid to Russia	20	1,376	2,436	4,074	2,764	10,670
Aid to other countries. . .						2,872
Total Lend-Lease aid . . .						43,615

Source: Central Statistical Office

(c) *Comparison of Lend-Lease Aid to the British Empire and
Reciprocal Aid to the United States up to VJ-Day*

	In \$ millions		In £ millions sterling	
	Lend-lease aid from U.S.	Reciprocal aid to U.S.	Lend-lease aid from U.S.	Reciprocal aid to U.S.
U.K.:				
Ships and construction	2,107	910	301	227
Military stores	13,823	2,014	1,975	288
Petroleum	1,850 ¹	1,187	462 ¹	297
Other goods	6,263 ¹	361	1,566 ¹	90
Services	2,980	1,195	745	299
TOTAL	27,023	5,667	5,049	1,201
Australia	1,570	1,041	296	216
New Zealand	271	248	52	54 ²
South Africa	296	1	53	—
India	913	610	178	134
TOTAL	30,073	7,567	5,628	1,605

NOTE: Conversion from dollars to pounds sterling and conversely at \$7 to £1 for military stores (including ships) and at \$4 to £1 for all other goods and services.

Source: R. G. D. Allen, 'Mutual Aid between the U.S. and the British Empire', *Journal of the Royal Statistical Society*, Part III, 1946.

¹ Approximate division between petroleum and other goods.

² Less than £0.5 million.

(d) *Exports of Produce and Manufacture of the United Kingdom*

Year	Value as recorded £ million		Index of volume 1935=100	
	Including munitions	Excluding munitions	Including munitions	Excluding munitions
1938	470·8		98	
1941	365·4		55	
1942	391·4	271·3	52	36
1943	337·5	233·5	42	29
1944	328·3	266·3	38	31
1945	434·5	399·3	49	45

NOTE: (1) As the figures up to the end of 1941 do not show munitions separately, it is impossible to get comparable figures.

(2) The index of volume is calculated on quantities revalued at 1935 prices and expressed as a percentage of the quarterly average in 1935.

Source: Board of Trade

(e) *Shipping*

(i) Gains and losses of non-tankers on the British Register or on time charter to the United Kingdom

(1,600 gross tons and over) Thousand gross tons

	Gains	Losses	Net gains (+) or losses (-)
1941 1st Quarter	783	969	-186
2nd Quarter	733	1,264	-531
3rd Quarter	787	625	+162
4th Quarter	638	392	+246
1942 1st Quarter	546	826	-280
2nd Quarter	607	958	-351
3rd Quarter	822	1,363	-541
4th Quarter	626	1,374	-748
1943 1st Quarter	542	729	-187
2nd Quarter	643	548	+95
3rd Quarter	830	406	+424
4th Quarter	977	334	+643
1944 1st Quarter	703	242	+461
2nd Quarter	778	212	+566
3rd Quarter	375	352	+23
4th Quarter	431	211	+220

NOTE: (1) Gains cover new construction, new charters, transfers, captures, etc.

(2) Losses cover enemy action, marine risk, termination of charter, transfer, etc.

(3) Figures of loss are given by date of notification and not by date of occurrence.

(4) The figures from the fourth quarter of 1943 onwards are not strictly comparable with the earlier figures.

(5) The figures in this table are not comparable with the figures in Table 3(d) of the statistical summary to Part III. There, the figures for gains and losses refer only to British registered tonnage.

(6) It is important to realise that figures for gains are no guide to the post-war position as they include ships due to be returned after the war.

(7) For definition of gross tons and deadweight tons, see p. 80 above.

Source: Central Statistical Office

(ii) Gains and losses of tankers on the British Register, Allied and neutral tankers on time charter to the United Kingdom and other Allied tankers under the control of the Allied Governments¹

Thousand deadweight tons			
	Gains	Losses	Net gain (+) or loss (-)
1942 1st Quarter	62	598	-536
2nd Quarter	164	599	-435
3rd Quarter	117	344	-227
4th Quarter	130	278	-148
1943 1st Quarter	110	349	-239
2nd Quarter	95	132	-37
3rd Quarter	55	87	-32
4th Quarter	139	54	+85
1944 1st Quarter	199	82	+117
2nd Quarter	110	42	+68
3rd Quarter	69	72	-3
4th Quarter	96	30	+66

NOTE: (1) Figures are given by date of notification and not by date of occurrence.

(2) The figures from the fourth quarter of 1943 onwards are not strictly comparable with the earlier figures.

Source: Central Statistical Office

(iii) Employment of non-tankers on the British Register or on time charter to the United Kingdom

(1,600 gross tons and over)

Thousand gross tons

End of Month	Allocated to the Fighting Services ²	Coasting trade of U.K. and Eire	Trading between countries other than the U.K. and Eire	Repairing or damaged ^{3,4}	Importing Services of U.K. ⁵	Total ³
1941 September	3,995	314	2,505	2,045	7,114	15,973
1941 December	4,341	373	2,677	2,041	6,787	16,219
1942 March	4,828	322	2,814	2,073	5,902	15,939
June	4,405	394	3,322	1,795	5,672	15,588
September	4,715	306	3,475	1,563	4,988	15,047
December	4,840	325	2,824	2,343	3,967	14,299
1943 March	4,591	309	2,158	2,070	4,984	14,112
June	4,829	260	2,406	1,512	5,200	14,207
September	4,709	317	3,289	1,500	4,816	14,631

Source: Central Statistical Office

The series of figures in the last table was discontinued after September 1943. The following table shows the employment figures analysed differently.

¹ i.e. tankers under the control of the Belgian, Dutch, Greek and Norwegian Governments.

² Excluding vessels under repair other than naval commissioned vessels. A part of the tonnage in this column brought commercial cargoes to the United Kingdom on completion of the outward voyage (see note 5).

³ Including a small tonnage allocated but not yet delivered.

⁴ This column includes all vessels other than naval commissioned vessels out of employment.

⁵ This column includes vessels which brought imports to the United Kingdom but which were allocated on the outward voyage to the fighting Services or which had previously been trading between countries other than the United Kingdom and Eire. In addition to the figures in this column, certain of the vessels still under allocation to the fighting services for the homeward voyage were bringing imports to the United Kingdom.

(iv) Non-tankers under British Control
Analysis by Availability
(1,600 gross tons and over)

Thousand gross tons										
End of month	Vessels not engaged in or available for carrying cargoes to or from overseas countries (including all troopships)							Vessels carrying or available for carrying overseas cargoes civil or military	TOTAL	
	Troop-ships ¹	Other vessels wholly on fighting Services ¹	Immobi-lised by damage repair, fitting or recondi-tioning	Engaged on coasting or inter-coastal trade	Engaged in local operations	New vessels not yet allocated, etc.	Employ-ment infor-mation incomplete			Total
1943 March	2,103	1,398	1,773	1,166		19	20	6,479	7,742	14,222
June	2,127	1,366	1,177	1,618		58	10	6,357	7,889	14,246
September	2,180	1,251	1,041	1,673		85	6	6,235	8,449	14,685
December	2,217	1,271	1,445	1,686		105	3	6,721	8,607	15,328
1944 March	2,313	1,305	1,043	2,089		141	2	6,893	8,896	15,789
June	2,292	1,406	1,251	1,229	1,844	136	12	8,171	8,185	16,355
September	2,245	1,308	1,247	1,279	1,671	151	2	7,903	8,475	16,378

Thousand gross tons

¹ Including those under repair.

Source: Ministry of War Transport

(f) Imports under Departmental Programmes
(excluding imports from Eire)

Million tons

	Non-tanker Imports				Tanker Imports ¹
	Total	Ministry of Food	Ministry of Supply	Munitions Miscellaneous	
Quarterly average, 1934-38 . . .	13.75	5.5	6.5	1.75	4.1
Quarterly average, 1941 . . .	7.6	3.7	3.8	0.2	3.4
1942 1st Quarter . . .	5.8	3.0	2.7	0.16	2.9
2nd Quarter . . .	6.4	3.3	2.9	0.19	2.3
3rd Quarter . . .	6.2	2.5	3.5	0.22	3.0
4th Quarter . . .	4.6	1.9	2.5	0.20	2.8
1943 1st Quarter . . .	4.5	2.0	2.2	0.26	2.7
2nd Quarter . . .	7.2	3.4	3.2	0.59	3.8
3rd Quarter . . .	7.8	3.2	3.9	0.68	5.2
4th Quarter . . .	7.1	3.0	3.6	0.48	3.6
Quarterly average, 1944 . . .	6.3	2.7	2.9	0.60	5.1
Quarterly average, first half of 1945 . . .	6.2	2.9	2.9	0.43	5.0
Year 1941	30.5	14.7	15.0	0.78	13.6
Year 1942	22.9	10.6	11.5	0.8	10.7
Year 1943	26.4	11.5	12.8	2.0	15.1
Year 1944	25.1	11.0	11.8	2.4	20.5

Source: Central Statistical Office

¹ Petroleum products, molasses, unrefined whale oil and industrial alcohol. From January 1943 acetone is included.

(g) Stocks of Food and Raw Materials in the United Kingdom

Million tons

End of month	Food and animal feeding-stuffs			Raw materials		Petroleum products	Principal commodities					
	Total	Stocks		Total ¹	Covered by import programme		Iron-ore ²	Steel ³	Timber ⁴	Non-ferrous metals ⁵	Wheat ⁶	Flour
		other than on farms	on farms									
<i>Beginning of War</i>	10.5	3.7	6.8	13.1	11.8	6.7	2.4	1.0	3.9	0.7	1.0	0.3
1940 June	5.1	4.9	0.2	11.5	10.1	6.3	2.3	0.8	2.8	0.7	1.4	0.7
December	10.6	5.1	5.5	14.4	12.5	5.4	2.0	1.7	4.1	0.8	1.3	0.7
1941 June	5.2	5.0	0.2	13.8	12.3	4.7	1.9	2.2	3.5	0.8	1.6	0.7
December	13.4	6.4	7.0	14.7	12.9	7.0	2.1	2.6	3.0	0.9	1.4	0.9
1942 March	9.0	6.3	2.6	13.7	12.0	6.7	2.1	2.4	2.4	0.9	1.1	0.8
June	6.6	6.3	0.3	13.4	11.8	5.9	2.1	2.3	2.1	0.8	1.5	0.8
September	12.8	6.0	6.8	14.1	12.2	5.8	2.2	2.5	2.1	0.8	1.3	0.7
December	13.7	5.7	8.1	13.0	11.2	5.3	2.0	2.2	2.1	0.7	1.1	0.7
1943 March	9.2	5.4	3.8	12.0	10.4	4.8	1.9	1.8	2.1	0.7	0.9	0.7
June	6.4	6.0	0.4	12.3	10.6	5.7	2.1	1.9	2.2	0.8	1.4	0.8
September	13.9	6.8	7.1	13.6	11.7	7.5	2.1	2.1	2.6	0.9	1.7	0.9
December	15.8	7.6	8.1	13.8	11.8	7.5	2.1	2.2	2.8	0.9	1.6	0.8
1944 June	7.3	7.0	0.3	12.8	11.0	7.2	2.1	1.9	2.4	1.0	1.6	0.9
December	15.0	7.1	7.9	12.1	10.3	6.5	1.6	1.7	2.3	1.1	1.4	0.8
1945 June	6.5	6.1	0.4	11.0	9.3	4.9	1.9	1.3	1.8	1.0	1.4	0.5

¹ Excluding consumers' stocks of steel.² Including home-produced iron-ore at the imported equivalent.³ At producers' works and in British Iron and Steel Corporation stockyards, including material in transit. Consumers' stocks are excluded.⁴ Softwoods, hardwoods, pitwood and constructional plywood.⁵ Copper, zinc, zinc concentrates, lead, tin, nickel, bauxite.⁶ Including dilution grains from December 1942 to December 1944.

Source: Central Statistical Office

CHAPTER XIII

THE NEW PROPORTIONS OF THE WAR

(i)

Economic Aspects of the New Alliances

UP to June 1941 the British had shouldered the main strategical and economic burdens of the war. In December 1941 they were still shouldering the main economic burden. However, from that time onwards, 'World War II', as the Americans named it, began really to live up to its name. It encircled the whole earth. In this global war, Britain maintained still a prominent, but no longer the dominant, position. The present chapter will outline in broad economic terms what this new position was.

The Second World War never became completely 'one war'. Between China and Germany there were never active hostilities; between Soviet Russia and Japan there was a pact of neutrality which lasted up to the very eve of Japan's overthrow. Even in Europe, there was a marked separateness between the operations in the east and those in the south and west. Thanks chiefly to the persistent efforts of Mr. Churchill and President Roosevelt, personal contact was established with the Soviet leaders and some degree of co-ordination was achieved between the Russian and British-American offensives; but Moscow remained aloof—even further aloof than geography dictated—from the concerted war-planning of Washington and London.

If this were a military history, it would lay the heaviest possible stress upon Soviet Russia's military services to Britain; but, since it is an economic history, it must review, even if briefly, Britain's economic services to Soviet Russia. Russian resistance to the German attack brought an immense easement of the strategical burden the British were carrying, but added to the economic burden. Supplies to Russia became an urgent British commitment and large quantities were promptly despatched, including 450 aircraft, 22,000 tons of rubber, three million pairs of boots and considerable stocks of tin, aluminium, jute, lead and wool—all these before the end of September. In that month, British and American delegations went to Moscow to receive a more formal statement of Russian requirements and to assess their combined capacity to supply them.

A study of the routes by which British and American supplies reached Russia would make in itself, if space permitted, a fascinating chapter of this history. The Arctic convoys to the White Sea ports underwent the most dramatic vicissitudes of fortune. In these convoys British merchant ships predominated at the beginning and American merchant ships at the end; from beginning to end the escorting warships were British. Up to the early days of March 1942, only one merchant ship was lost out of 110 despatched; at that time the deficiencies of Russian port capacity were a greater hindrance to the flow of supplies than were the German surface vessels, submarines and aircraft based on Norway. This situation changed when the days grew longer and when the size of convoys was increased through American anxiety to make good their backlog of deliveries. The famous convoy P.Q.17, which sailed for the White Sea ports at the time of almost continuous Arctic daylight at the end of June, lost twenty-two of its thirty-three merchant ships. The next convoy, postponed until mid-September, lost thirteen of its forty ships, though the Germans also lost heavily in aircraft.¹ Thereafter, shipping requirements for the invasion of North Africa necessitated an interruption of the Arctic convoys until mid-December. Such an interruption meant that a sizeable amount of tonnage lay idle for months in Russian ports; for there was a two-way convoy movement and ships leaving Murmansk had to meet those leaving Scotland and Iceland somewhere off the North Cape. The Russian convoys were suspended at times in later years, in 1943 for the invasion of Italy, in 1944 for the invasion of Normandy; but German interference from Norway was never again a major cause of loss and delay. From November 1943 to February 1944, five convoys were run with the loss of only three ships out of a total of 191,² and, when activity on the northern route was resumed after the invasion of Normandy, convoys of between thirty and forty ships were run virtually without loss at regular intervals of from four to five weeks.

The drama of the Persian Gulf supply route to Russia was of a different kind; here there was no need for fighting, but great need for constructional work to increase the capacity of Persian ports, railways and roads. For the first twelve months, the burden of this work was carried by the British; but by an agreement of September 1942 the United States Persian Gulf Service Command took over the greater part of it. Interruptions on the Arctic route were a powerful stimulus to American and British efforts to develop the Persian Gulf route to its maximum capacity at the greatest possible speed; at the same time, a balance had to be struck between Russian requirements

¹ The Admiralty's estimate was thirty-six German aircraft lost.

² During the passage of J.W. 55B, the *Scharnhorst* was sunk by units of the Home Fleet.

and those of the Persian population and of the British Tenth Army, which was guarding that important strategical area. The achievement was impressive. In the summer of 1942 clearance of supplies to Russia over the Persian route was 15,000 tons a month. By the end of the year it had risen to 45,000 tons. By the summer of 1943 it had risen to 170,000 tons. In the summer of 1944 it reached the peak figure of 290,000 tons a month.

Other Middle Eastern supply routes were experimentally tried, or at least explored; but they were all of minor importance. In North Pacific waters, however, there was a third supply route of very great importance. Its existence gives striking illustration both of the global nature of the war and of its curious incompleteness. It was the pact of neutrality, maintained almost until the end of the war between Japan and the U.S.S.R., which gave full value to Vladivostok as a port of entry for American and also (in minor degree) Australian supplies. At the beginning, the supplies were carried chiefly in United States ships; but the risk of loss through Japanese interception¹ prompted the Americans to transfer large numbers of ships to the Soviet flag, which gave immunity from Japanese attack.² By the last quarter of 1944, United States and Canadian supplies were travelling along this route at the rate of 297,000 tons a month. Meanwhile, the close neighbourhood of Soviet and United States territory was demonstrated through the delivery of combat aeroplanes by direct flight from Nome in Alaska to airfields in eastern Siberia. This was the main air route used by the Americans in fulfilment of their protocol commitments; in addition they made use of the air route via the Atlantic and Africa.

In the total of supplies delivered over all routes to Russia, the shares of Britain and the United States were at the beginning approximately equal; but the American share progressively increased until it became in the end by far the larger one. What Russia required and what the Western Allies were able to supply were defined in a series of Protocols. The first Protocol, signed at Moscow early in October 1941, ran from that date until the following June; the later Protocols ran from 1st July in each year until the end of June in each following year. Each Protocol listed the specific supplies to be delivered, the monthly rates of delivery to be aimed at and the totals for the whole period. There were, however, various reservations which gave some flexibility to the engagements that had been undertaken. For example, the first Protocol bound the supplying countries to provide the goods that were specified, not the shipping to carry them. Russia however

¹ Although the risk was always present, the Japanese in fact sank only two merchant ships on this route throughout the whole period of its use.

² During the period of the second Protocol, sixty-four ships were transferred.

proved unable to provide merchant ships or escorts; Britain and the United States therefore supplied both.¹ The first Protocol also made provision for consultation between the three countries if any change in the war situation or shift in the borders of defence should make necessary a readjustment of the arrangements that had been made. Clauses which were similar in principle, if not in detail, were embodied in the later Protocols also.

What the Russians needed most urgently in the autumn of 1941 was quick and effective reinforcement of their fighting equipment. At that time, four of their large aircraft factories, two from the Ukraine and two from the Leningrad area, were being evacuated and erected elsewhere; in a message to the Prime Minister, Marshal Stalin stated that they would not be in production again for seven or eight months at the earliest. Russian production about this time was down from seventy to eighty aircraft a day to approximately thirty a day. Aircraft took first place among Russian requirements and Britain and America undertook to supply them, on a fifty-fifty basis, at the rate of 400 a month, in the ratio of three bombers to one fighter.² The Russians were also in urgent need of tanks which the two western powers, again on a fifty-fifty basis, agreed to supply at the rate of 500 a month;³ in addition, the British agreed to supply 'tankettes' (bren gun carriers) at the rate of 200 monthly. Of materials, the Russians were in special need of aluminium; the Americans undertook to supply 23,000 tons of it during the Protocol period and the British 18,000 tons, which would be procured for the most part from Canada.⁴ The American commitment for machine tools was considerably higher than the British and in the event the Americans supplied 2,652 machines during the nine-months period while the British supplied 1,210. Both countries undertook extensive miscellaneous commitments for the supply of raw materials, food-stuffs and medical supplies. There were besides various supplementary requirements which did not figure in the Protocol: for example, the Russians made an unexpected request for anti-gas respirators. A million and a

¹ Although Britain and America bound themselves merely to make the listed supplies 'available at centres of production', thereby refusing guarantee of shipment, they promised to 'help with the delivery'. At no time during the war were the Russians able to contribute merchant shipping or naval vessels to the Allied cause.

² These proportions were subsequently reversed.

³ Under the Protocol, no more than half the total were to be light tanks. The types actually sent from the United Kingdom were Tetrarchs, Matildas and Valentines, with some shipments of Churchills in May and June 1942. As late as the third Protocol (July 1943-June 1944) the Russians expressed a preference for British tanks over American, because (so it transpired later) of the more generous British provision of spare parts. They also showed a strong preference for Valentines, even when obsolescent, owing to the simplicity of the type and because, having already considerable numbers, they wished so far as possible to standardise.

⁴ In the third Protocol and thereafter Canada was a directly contracting party.

half were promptly despatched from Britain. And the provision of spare parts became increasingly important.

After Pearl Harbour, some of the engagements listed in the Protocol were modified; for example, by arrangement with the Combined Raw Materials Board and with Russian agreement, the monthly quotas of rubber and tin were reduced from 6,000 and 1,500 tons to 2,000 and 1,000 tons respectively. It seemed for a time as if the whole programme might fail; on the morrow of Pearl Harbour the Americans suspended all deliveries and, although they soon resumed them, it was some months before they caught up with the target rates of delivery. But in the end they made good most of the lost time. By and large, the programme of the first Protocol was fulfilled.

When the time approached for negotiating the second Protocol, the British would have wished to apply to Russia the same methods of allocation to which they themselves were subjected—that is, to get the Russians to justify their requirements by submitting facts and figures, whether through the mechanism of the Combined Boards or in some other way. The Americans thought that for political reasons this procedure would not work. In the end, both countries made a joint approach to the Soviet Government with separate but co-ordinated schedules of supplies. The British offer was prepared in the knowledge that the Russians would have to bear the brunt of Germany's attack in the coming summer and that any slackening of aid might impair their will to fight; it might also impair the will of British workers to produce. So far as possible, aid should take the form of the most efficient weapons and it should arrive in time for the impending battles. In view, however, of the limitations of shipping and of Russian port and inland-clearance capacity, the joint British-American programme should be planned within the bounds of four million tons of high-priority supplies. Actually, the British-American lists added up to 8,000,000 tons, from which the Russians were invited to select 4,400,000. The Russians scaled down the lists chiefly by sacrificing foodstuffs and oil products. They put the heaviest emphasis upon their need for tanks, aircraft, aluminium and industrial equipment.

During the period of the second Protocol, the Americans took the leading place as suppliers of Russian needs. Whereas, for example, the British could not raise the rate of their delivery of tanks above 250 per month, the Americans undertook to deliver 3,000 in the first half of the period while in the second half they raised the figure to 4,500—a total of 7,500 for the whole twelve months, in comparison with the British total of 3,000. For aircraft, British and American offers were more nearly equal; for the first six months the British promised

delivery at the rate of 200 monthly while the American promise for the same period was 212 monthly. This undertaking was in fact modified by a series of British-American agreements whereby American aircraft were made available to fulfil the British commitment to Russia, in return for British aircraft supplied to the United States Army Air Force in Britain. As for aluminium, the amount supplied by the United States (49,225 tons) was four times the amount of British supplies, which were in any case chiefly procured from Canada. The Americans also out-distanced the British in the supply of industrial materials and equipment.

At the end of the second Protocol period, both countries had fallen short of their targets. Owing chiefly to the interruptions of the Arctic convoys, the total supplies despatched (2,972,000 tons) were nearly $1\frac{1}{2}$ million tons short of the figure set out in the Protocol. However, when the time came to negotiate the third Protocol, there was a very different war situation. In the east, the Russians had begun their campaigns of reconquest; in the west, the British-American assault on Europe was impending. Henceforward the Russians were far less preoccupied in securing military equipment. Industrial equipment, of which the Americans were the largest suppliers, became the most heavily accented requirement of the third and fourth Protocols.¹

The official American estimate in money terms of the total of United States aid to Russia up to 31st August 1945 is \$10,670 millions—about one quarter of the total of lend-lease aid rendered to all countries. The official estimate in money terms of the total of British aid, excluding the value of supplies sent before signature of the first Protocol, was given by the Prime Minister in the House of Commons on 16th April 1946: in the period from 1st October 1941 to 31st March 1946 the value of munitions despatched was approximately £308 million; in addition the value of raw materials, food-stuffs, machinery, industrial plant, medical supplies and hospital equipment sent was about £120 million.² No attempt will be made

¹ When the war in Europe ended, supplies to Russia under the fourth Protocol were suspended, except those listed in the secret Annex III to the Protocol: these were to facilitate Russian participation in the war against Japan.

² H. of C. Deb., Vol. 421, Cols. 2515–2519. These figures exclude sea freight costs and the aid provided by the Royal Navy in the form of convoy escorts. They also exclude the one battleship, nine destroyers and four submarines which were a special arrangement described by Mr. Churchill to the House of Commons on 5th June 1945 (H. of C. Deb. Vol. 411, Cols. 683–687). Military supplies were provided on lend-lease terms. Civil supplies other than medical supplies or comforts were provided under an agreement whereby the Soviet Government paid forty per cent. of the value in gold or dollars and the remaining sixty per cent. out of an interest-bearing and repayable credit from His Majesty's Government. Medical supplies were provided free by public subscriptions to charitable bodies, mainly the Red Cross and St. John War Organisation. Clothing and comforts were bought out of a grant from the British Government and out of contributions from charitable bodies. Figures of supplies refer to actual shipments and not to arrivals (i.e. shipments minus losses).

here to adjust the dollar figures to the sterling ones nor to estimate the comparative effort and sacrifice involved in British and American aid to Russia; in so far as comparisons of this kind are necessary for taking the measure of British economic effort during the war, they will be made below in a considerably broader context. Here it need only be repeated that the volume of American aid over the whole period far outdistanced the volume of British aid, though in the first Protocol period and the first half of the second Protocol period—the time when Russia's need was most urgent—the supplies sent from the United Kingdom, despite its much smaller resources and the much greater strain imposed upon them, were very closely comparable with those sent from the United States.

The material is not available and probably never will be available for a detailed comparative study of the war economies of Britain and Soviet Russia; but there is a great volume of precise data which could be used for the comparative study of the British and American war economies. In the present book, however, the temptation to go too deeply into this inquiry must be resisted. The series in which the book has its place deals with the United Kingdom at war; international comparisons must be no further employed than is necessary for getting the British economic effort into proper focus. Nor is it possible to devote much space to the study of the combined planning whereby the British and American Governments endeavoured to make efficacious their concept of the pooling of resources. That story could not be adequately told except in a complete book as long as the present one. Nevertheless, the story must at least be sketched in outline; for after Pearl Harbour the war efforts of the two countries were so closely interlocked that neither can be properly understood if it is viewed in isolation from the other. The view of British war economy, in particular, would be quite out of perspective if it were not seen against the common British-American background.

It is desirable, first of all, to get a reasonably correct impression of the comparative war-making strengths of Britain and America. A good practical way of opening the inquiry is to compare the sizes and proportionate employments of the fighting and working populations of the two countries. The following table gives the comparison, as agreed by British and American statisticians,¹ for the summer of the invasion of Normandy.

¹ By Canadian statisticians also: the figures quoted are in Table IV of *The Impact of the War on Civilian Consumption in the United Kingdom, the United States and Canada*. This was a report prepared in 1945 by a Special Combined Committee for the Combined Production and Resources Board. The Canadian figures have for the sake of simplification been omitted above.

Mobilisation of the Labour Force aged 14 and over of each Country for War, June 1944

	Million persons	
	United Kingdom	United States
A. Armed forces	5.2	11.5
B. Civilian war employment	7.8	13.4
C. Total A+B	13.0	24.9
D. Other employment	10.4	36.3
E. Unemployed	0.1	1.0
F. Total Labour Force aged 14 and over	23.5	62.2

The first fact which emerges from the table is that the United States armed forces in the summer of 1944 were rather more than double the size of the United Kingdom armed forces. Obviously, this does not mean that from the time of Pearl Harbour onwards the Americans did twice as much fighting as the British. In the summer of 1942 their armed forces were still appreciably smaller than those of the British and though their heavy drafts in the following twelve months gave them by June 1943 a lead of four millions,¹ a very large proportion of their total strength was still in home bases. It was for example not until just before D-Day in June 1944 that the numbers of American soldiers in fighting contact with the enemy exceeded the number of British Empire soldiers so employed. This is clearly demonstrated in the graph on page 367.

The immensely greater fighting strength of the United States—potential at first—became actual at the time of culminating impact upon the enemy.

A similar conclusion emerges from the comparative study of munitions production. In the report already quoted, munitions production indices are given for the United Kingdom, the United States and Canada covering the years 1940–44. The indices demonstrate the immense acceleration of American output, which in 1944 was almost eight times as great as in 1941. Of course, the American effort during the period of comparison started from a very much lower base than the British one; but again, this is for present purposes not the main

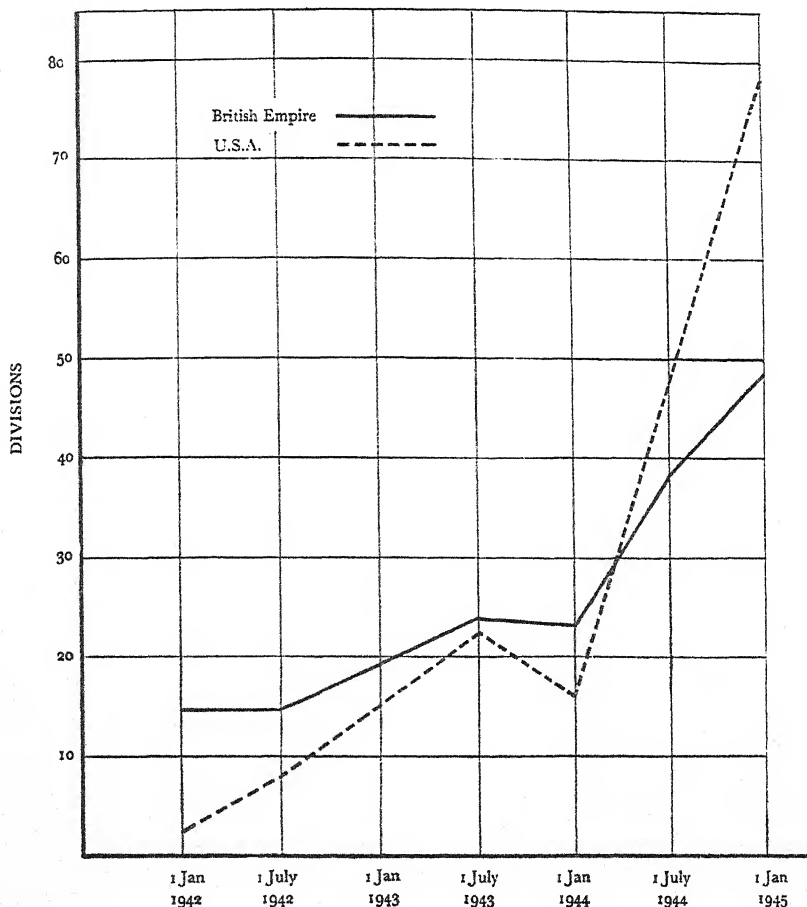
¹ Armed forces:

	Millions	
	U.K.	U.S.
mid-1939	0.6	0.4
mid-1941	3.8	1.7
mid-1942	4.5	3.7
mid-1943	5.1	9.2
mid-1944	5.2	11.5

The British figures include whole-time Civil Defence.

point. What is wanted is not merely a measurement of the comparative rates of growth, but an estimate of comparative productive strength at different points of time. Up to the early months of 1942, the volume of British munitions production was still greater than the American volume; but in 1943, the ratio of the American output to the British was nearly four to one. The Americans achieved this fourfold superiority

NUMBER OF ARMY DIVISIONS IN FIGHTING CONTACT WITH THE ENEMY (Western and Eastern¹ War Theatres)



This graph was made at the request of the authors by their military colleagues in the Historical Section. It has a very precise statistical basis, which however does not exactly fit the facts of United Kingdom deployment, because Dominion, Indian and European Allied formations in the Western and Eastern theatres are included. On the other hand, British Empire Forces in the Pacific theatre (e.g. the Australians in New Guinea) are excluded.

¹The N.W. Frontier of India does not count as an 'operational' area.

with a civilian war employment not quite double the British figure—in mid-1944 13·4 millions compared with 7·8 millions.

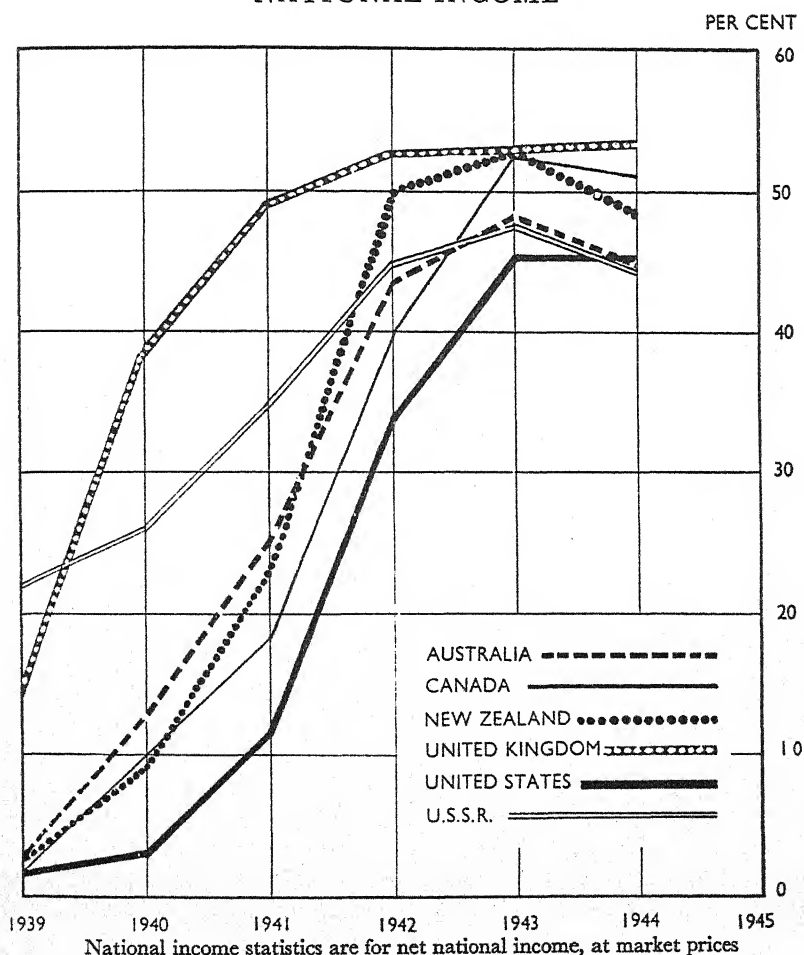
These figures of comparative productive strength must not be regarded as an estimate of comparative efficacy in war, still less of comparative war effort. War efficacy and effort signify not merely the accumulation of men and material but the intensity of their use in combat with the enemy. This point has already been made with reference to the deployment of armed forces and in certain circumstances it is no less valid for war production: for example, a 'mulberry' harbour produced in United States ports would probably have had no war-winning efficacy at all. A higher rate of production in areas thousands of miles distant from the battle fronts may have smaller value than a lower rate of output in an advanced base; indeed, if there should be insuperable difficulties of transportation, the higher rate of output in the distant country will have no military value at all. Throughout the war, the value of British production was in the military sense maximised because Britain was an advanced base, an 'arsenal of democracy' which saved distance and also, in the earlier years of the war especially, saved the time that enabled the New World democracies to 'tool up' their own factories.

Inevitably, war production in an advanced base has to struggle against acute difficulties which depress the rate of output. The direct destruction of materials and plant by air bombardment, the dispersal of production units, interruption of the flow of production through damage to the transport system, exhaustion of the workers through the black-out conditions in the factories and through the extra strain of night duty in the Home Guard or Civil Defence—all these drawbacks have to be set against the advantages of producing weapons close to the front line, or in it. There is another factor to be considered: when weapons produced in the factories must be used immediately in battle, they have to be modified continuously in order to keep pace with battle experience. This was the situation of the United Kingdom, particularly in the early years of the war. The advanced base was itself under menace of invasion; in consequence, the methodical tooling-up that would have given a larger output of standardised weapons in future years had frequently to be sacrificed for the sake of flexibility and immediate use in battle. In comparing British and American production it must also be remembered that in the early stages of the war a large proportion of British production consisted of defensive weapons to safeguard the United Kingdom. Even from the start a large proportion of American supplies were 'offensive'. This in part explains why when it came to the assaults of 1944 a large proportion of both British and American troops in action were using American munitions. Of course, American industry had a big initial superiority in higher productivity per man. This superiority was

increased by the particular character of the war effort demanded respectively from each of the two countries.

The study of comparative war effort merges also into the study of comparative sacrifice. This is a difficult and sometimes disputatious problem and the present writers have no wish to probe into it too deeply; but some use may be made of two measuring-rods which have been already employed in a purely national context. In the United States, the measuring rod of national income accountancy has more than once been authoritatively recommended as the most useful means of estimating the comparative effort and sacrifice of the nations allied in war. In the *Twentieth Report to Congress on Lend-Lease Operations*, presented in August 1945, President Truman declared: 'To the extent that the cost of each nation's contribution to the war

WAR EXPENDITURES IN PER CENT. OF NATIONAL INCOME



can be measured in financial terms, probably the best measurement is the proportion of its national income which each of the United Nations is devoting to the war.¹

The report illustrated this principle in the case of six nations by means of the graph which is reproduced on p. 369.

The report goes on to point out that the accuracy of such measurements varies from year to year and from country to country and that, in view of the great imperfections in the basic data, the ratios in the chart should be regarded, not as exact statistical measurements, but as general ratios and trends. It also emphasises the truth that money can never measure all the costs of the war. 'They must be and have been met in blood and toil, in lives lost and men maimed, in the immeasurable wreckage of human lives and happiness and the destruction of homes and cities.' No person possessing either military or economic knowledge would be rash enough to declare the war-effort of devastated Russia inferior to that of Britain or Canada, simply because the lines on the chart show that Russia—with its much lower national income per head of the population—devoted a smaller proportion of the total to direct war purposes. At the same time, no well-informed person can deny the significance of the contrast between the lines plotted for British and American war expenditures; for they clearly demonstrate that, of these two countries, the one which was subjected to direct attack and possessed besides the lower national income per head of the population, put forth an effort which was not only much longer sustained, but was also more intense in the period of climax.

When the measuring rod of manpower is used, the same conclusion emerges. This will at once become plain if the totals that were set down in the table on p. 366 for June 1944 are now stated as percentages of the labour force in each of the two countries.

Mobilisation of the Labour Force of each Country for War, June 1944

	Percentages	
	United Kingdom	United States
A. Armed forces	22	18½
B. Civilian war employment	33	21½
C. Total A + B	55	40
D. Other employment	45	58
E. Unemployed	— ²	2
F. Total Labour Force	100	100

¹ *Op. cit.* p. 42. cf. the similar statement in June, 1942: 'All the United Nations are seeking maximum conversion to war production in the light of their special resources. If each country devotes roughly the same fraction of its national production to the war, then the financial burden of war is distributed equally among the United Nations in accordance with their ability to pay.' (*Fifth Report to Congress on Lend-Lease Operations*, June 1942, p. 23.)

² Less than 0.5 per cent.

These figures demonstrate the more intensive mobilisation of British manpower. An equally striking demonstration could be achieved by translating the comparative totals into ratios. The American population of working age was nearly three times as large as the British; but the ratio of the American to the British armed forces was no more than 2.2 : 1. When the figures of civilian war employment are added to those of military service, the ratio of American superiority is appreciably less than 2 : 1.

Viewed as a whole, the American task of mobilising its manpower was far lighter than the British task.¹ In 1939, the American population of working age (i.e. fourteen to sixty-four inclusive) was about 91,300,000; by 1943, the total had risen to 94,900,000—a rate of increase of about 900,000 annually. Moreover, the Americans before the war had 8½ millions unemployed. With so large a spring of natural increase and so large a pool of unused resources to draw upon, they were less dependent upon emergency recruitment, which was, besides, much easier for them, because of the very large numbers of young people who could be drawn into industry from the colleges and universities. For all these reasons, it was for them a smaller effort to build up their total employed labour force from forty-three millions in 1939 to sixty-two millions in 1944 than it was for the British to build up their total labour force from 19½ millions in 1939 to 23½ millions in 1944. During the war the United Kingdom's population of working age (fourteen to sixty-four inclusive) was practically stationary at about thirty-four millions, its reserve of unemployed workers at mid-1939 was 1.4 millions and its so-called 'unoccupied' population was for the most part busily engaged in household tasks.

The manpower situation of the United States was easy enough to permit an extraordinary expansion of the armed forces and war industry without diversion of labour on a scale that would have stopped the expansion of American standards of living.² To the historian of British war economy, the realisation that manpower was never the most critical American shortage comes almost as a shock. 'At no time', an American official historian has written, 'were labor shortages so critical as the shortages of raw materials, machine tools, components, ships, freight cars, and other items which necessitated

¹ See Table III of the article 'Mutual Aid between the U.S. and the British Empire, 1941-45' by R. G. D. Allen. *Journal of the Royal Statistical Society*, Part III, 1946. See also C. T. Saunders: 'Manpower Distribution, 1939-45: Some International Comparisons.' *The Manchester School*, May 1946.

² American consumers were, of course, compelled to make specific sacrifices, especially of 'consumers' durables', such as automobiles, electric household apparatus, etc., etc., which normally were produced by 'Group I' workers. But the sixty per cent. of the American working population remaining outside the direct war zone was able to safeguard American consumers from the paradox endured by the British—higher money incomes alongside a general lowering of living standards.

tight control programs in those fields.¹ The strategically central control over American industry was exercised through allocation of materials and distribution of component parts. The Americans got through the war without a National Service Act. They never really needed one. If the war had lasted much longer, manpower would probably have become their most troublesome shortage and they would then have been compelled to choose between industrial conscription and a failing war effort; but, as things turned out, their situation in 1945 was rather like Britain's situation in 1918. They had been able to achieve victory without submitting their economic and social system to this ultimate strain.

What impresses the economic historian is the contrast between the lavishness of American and the scantiness of British resources in relation to the challenges that the two countries respectively had to face. Because of this contrast, the tasks of American and British economic statesmanship were in some respects different. It did not matter very much if the Americans spilt a cupful or two from their gallon pot; what mattered most was that they should achieve unprecedented speed in filling their pot and pouring it out. This they did. But the British had to get a full pint out of their pint pot and if possible a bit more; they could hardly afford to spill a single drop. By 1943 manpower had become their basic shortage and they had to exercise the most parsimonious calculation in allocating it amongst alternative uses. It is significant that, out of a 2.8 million increase² in their total of gainfully occupied persons, 2.2 millions were women; the demands of the war upon the women of America, though substantial, were far less urgent.³ Moreover, the hours of labour were lengthened far more drastically in Britain than in America.⁴ Most significant of all was the ruthless diversion of British labour from peace employment to war employment. Whereas in America the switching of labour made a subsidiary contribution to war mobilisation, in Britain it made the chief contribution. With only forty-five per cent. of the British labour force remaining in 'other

¹ *The United States at War. Development and Administration of the War Program by the Federal Government.* Prepared . . . by the War Records Section, Bureau of the Budget, pp. 173 cf. pp. 298-320 and 450-5.

² This is the figure for 1943, the peak year of manpower mobilisation both in the United Kingdom and the United States.

³ In Great Britain the proportion of women of fourteen and over who were gainfully occupied rose from twenty-seven per cent. in 1939 to thirty-seven per cent. in 1944; in America the rise was from twenty-six per cent. in 1939 to thirty-two per cent. in 1944. (See C.T. Saunders, *op. cit.*, pp. 12, 14). The estimates are for Great Britain, not the United Kingdom: i.e. Northern Ireland is excluded.

⁴ In the United States the wage-earner's average weekly hours in munitions industries increased from 37.2 hours in 1939 to 47.5 in 1943. In the United Kingdom the corresponding increase was: in 1938, 48 hours for men and 44.2 for women, in 1943, 54.1 hours for men and 46.9 for women. (For definitions and further explanation see *The Impact of the War on Civilian Consumption*, p. 9.)

employment', the British people were compelled to undergo, irrespective of the shipping shortage, a sharp decline in their domestic standard of living, their export trade and their capital inheritance. The price paid in over-strain for this intense British mobilisation will become apparent in some of the following chapters.¹

The strain would have been beyond bearing; indeed, the task would have been beyond the bounds of physical possibility, had it not been for the aid rendered by the United States through lend-lease. While the British mobilised fighting forces out of all proportion to the size of their population, American industry took over part of the task of equipping those forces. British-American war plans in the autumn of 1942 were based on the assumption that the United States would provide almost 100 per cent. of the joint requirements of transport aircraft, self-propelled guns, forty-ton tank transporters and ten-ton lorries, together with very high proportions of landing craft, auxiliary aircraft carriers, light bombers and tanks. An index compiled by Professor R. G. D. Allen reveals the increasing American contribution to the munitioning of British Commonwealth forces.

British Empire Supplies of Munitions from all Sources²

	Sept.- Dec. 1939 and 1940	1941	1942	1943	1944	First half 1945	Total
Total supplies (\$ millions)	9,200	13,000	19,900	24,800	24,700	9,300	100,900
Per cent. from:							
U.K.	90.7	81.8	72.6	62.4	61.2	66.1	69.5
Canada	2.6	5.2	8.6	8.8	8.9	10.0	7.9
Eastern Group (mainly Australia, New Zea- land and India)		1.5	1.9	1.9	1.2	1.7	1.6
Purchases in U.S.	5.6	9.1	4.7	2.4	1.5	1.2	3.7
U.S. Lend-Lease	—	2.4	12.2	24.5	27.2	21.0	17.3

It is doubtful whether a completely satisfactory index could be compiled. Nevertheless, it may be accepted that the United States, whose contribution of munitions up to Pearl Harbour had been negligible, were by 1942 supplying approximately one-tenth of the munitions requirements of British Empire armed forces and by 1943-44 over a quarter. The United Kingdom, in the culminating period of the war, was called upon to supply over sixty per cent. of the total munitions becoming available for Empire countries. This was a heavy burden for so small a population and it could not have been

¹ See especially Chapters XVI to XIX.

² R. G. D. Allen, *op. cit.*, Table 18. This table covers total supplies of munitions becoming available to Empire countries from domestic production and from the United States, including munitions later transferred to Allies. Valuations are as far as possible at comparable U.S. costs. For further explanation of the table see Professor Allen's article.

borne without a disproportionate concentration of British industrial manpower in the war factories; in June 1944, as we have seen, thirty-three per cent. of the total labour force in the United Kingdom was in civilian war employment as against $21\frac{1}{2}$ per cent. in the United States. But this concentration would itself have been beyond attainment had it not been for the large deliveries to British war industry of lend-lease materials and tools and the large deliveries of food to the British civilian population. If, to quote one example out of many, Britain had been compelled to make current payment for the larger part of her essential imports, she would have been quite unable to cut by seventy per cent. or so the volume of her production for export.¹

The narrative therefore returns from comparative effort, which is in this chapter the minor theme, to the major theme of comparative strength. What calls for most emphasis here is the American achievement of raising its armed forces from 1.7 millions in the year of Pearl Harbour to 11.5 millions in the year of Normandy, producing the equipment for these immense numbers, producing on top of that large masses of equipment for the British and other Allied nations, reinforcing the war industries of its Allies with materials and plant and contributing large quantities of essential civilian supplies—not to mention the shipping turned out in American yards to carry all these cargoes overseas. To the British inquirer, perhaps the most impressive demonstration of American strength is the fact that the aid which so decisively re-inforced the war effort of his own people was only a subsidiary element in the American war effort. In terms of dollars, lend-lease aid to the whole British Empire over the period January 1942 to June 1945 amounted to no more than eleven per cent. of the total United States war expenditure. Some more specific examples may be given for 1944, the peak year. The deliveries of food which meant so much to the United Kingdom in that year amounted to little more than five per cent. of American food output. The deliveries of metals to the British Empire were 3.4 per cent. of American output; of machinery, 7.1 per cent.; of ships (including the work of ship repair in United States ports) 6.7 per cent.; of ordnance and ammunition, 8.8 per cent.; of aircraft, 13.5 per cent. Vehicles and their equipment, at 29.4 per cent. of American output, topped the list in 1944. In the two years, 1943–44, deliveries of all types of military equipment amounted to approximately $11\frac{1}{2}$ per cent. of American output. These were the years of decisive military impact and the years when lend-lease reached its maximum volume; after that, deliveries of almost every kind fell steeply down until lend-lease was once and for all cut off.²

¹ The index of volume of United Kingdom exports, excluding munitions, fell from 98 in 1938 to 29 in 1943 (see Table 3(d) on p. 354).

² See Chapter XIX, pp. 546–548.

The examples given above are quoted from Table 15 of Professor R. G. D. Allen's paper to the Royal Statistical Society.¹ Readers who desire a comprehensive and careful analysis of mutual aid between the United States and the British Empire are referred to that paper. No attempt can be made here to enter into the refinements of the statistical calculations, but the salient conclusions must be set down.

Before this summary is given, reference must be made and tribute paid to the financial aid granted by Canada to the United Kingdom. From the outset of the war, the Dominion had shown itself resolved not to allow the rapidly growing British shortage of Canadian dollars to create a corresponding shortage of the munitions and agricultural produce which Canadian producers could supply. By the time lend-lease came into operation, the British Government had run through its means of payment and the Canadian Government was holding sterling balances in excess of £200 million. In April 1942, the Dominion disposed of the past by means of an interest-free loan of \$700 million which extinguished the accumulated sterling balances; it provided for the future by a free gift of \$1,000 million. This gift covered United Kingdom requirements up to January 1943, when deficits on payment were covered for a month or two by a number of transitional improvisations.² In April 1943 the first Mutual Aid Bill was introduced into the Dominion Parliament; it appropriated \$1,000 million, most of which covered supplies to Britain. The next appropriation, for \$800 million, was made in the spring of 1944 and was supplemented, later in the year, by special manipulations to increase British holdings of Canadian dollars.³ Finally in the spring of 1945, the Canadian Government decided to make an interim war appropriation of \$2,000 millions to cover all war expenditure, including Mutual Aid, during the next five months. After VJ-Day a new chapter opened and the British deficit was financed by overdraft pending negotiation of an agreement to meet the needs of peace. The needs of war had been met from beginning to end without hesitation or stint.

To return now to American lend-lease: the outline from March 1941 to the end of August 1945, is as follows⁴:

	\$ millions
To the British Empire	30,073
To Russia	10,670
To other countries	2,872
Total lend-lease aid	<u>\$43,615</u>

¹ R. G. D. Allen, *op. cit.*

² Including the repatriation of certain residual British holdings of Canadian securities (Dominion and Provincial).

³ The basis upon which Canada paid the United Kingdom for the maintenance of her forces overseas was revised in British favour and the revision was made retrospective.

⁴ See Tables 3 (b) and 3 (c) in statistical summary, p. 353.

The British Empire's share in the total is approximately seventy per cent. It is a complicated business to determine precisely how the \$30,073 millions were divided among the constituent Governments of the Empire, but Professor Allen gives \$27,025 millions as the figure of lend-lease aid to the United Kingdom. Australia (\$1,570 millions) received the second largest share of aid rendered to the Commonwealth countries.

There is, of course, another side to the mutual aid account, namely, lend-lease in reverse or reciprocal aid, granted chiefly in the form of facilities and supplies for American forces overseas and raw materials for the use of American industry. Professor Allen estimates the total of British Empire reciprocal aid to the United States at £1,605 millions sterling. To make an appropriate translation of sterling value into dollar value is a very complicated business;¹ by Professor Allen's calculation, the reciprocal aid provided by the whole British Empire to the United States had a value between twenty-five and thirty per cent. of United States lend-lease aid to the Empire. Some countries of the Empire came fairly close to an evening of accounts; New Zealand actually gave as much as she got and Australia's contribution of reciprocal aid amounted to about seventy per cent. of the lend-lease aid that she received. These estimates are for total sums; if the mutual aid account were calculated in relation to national incomes and total war expenditures, both Australia and New Zealand would be credited with contributions of reciprocal aid very much above their receipts of lend-lease aid.²

The favourable American balance in mutual aid accountancy with the British Empire occurred primarily in the account with the United Kingdom. As against the estimated \$27,025 millions of lend-lease aid which the United Kingdom received, its contribution of reciprocal aid to all countries was £1,896 millions. This total was made up as follows:

	£ millions
To the United States . . .	1,201·2
To Russia . . .	312·0
To other countries (provisional figure) . . .	382·8
Total U.K. reciprocal aid . . .	<u>1,896·0</u>

¹ The official rate of exchange cannot be used to measure what the goods and services provided under lend-lease would have cost the United Kingdom and other British Empire countries in sterling if they had themselves produced them; nor, conversely, what the goods and services provided under reciprocal aid would have cost the United States in dollars if they had been provided at home costs. High costs, particularly in the sphere of munitions production, represent some of the 'cupfuls' spilt from the American gallon pot in the process of quick filling and pouring out. For munitions, Professor Allen favours an average of \$7 to £1 sterling and for other goods \$4 to £1 sterling. For lend-lease aid as a whole he translates at the rate of \$5·3 to £1 sterling and for reciprocal aid as a whole at the rate of \$4·7 to £1 sterling. 'The latter figure is the lower because the proportion of munitions—relatively highly priced in U.S. lend-lease—is higher in lend-lease than in reciprocal aid.'

² Professor Allen comments: 'Reciprocal aid from the two southern Dominions to U.S. forces in the Pacific was, in a sense, the practical substitute for the assistance which could no longer be provided to the United Kingdom.'

This table shows a sharing out of British reciprocal aid among the various foreign recipients that is rather different from the allocation of American lend-lease aid. Russia received a smaller proportion of the British than of the American total; other European countries received a larger proportion. But the broad division of United Kingdom aid between the United States and all other countries (sixty-five per cent. and forty-five per cent. respectively) is similar to the broad division of United States aid—seventy per cent. to the British Empire, thirty per cent. to all other countries.

At the rates of conversion that have been explained above, the £1,201 millions of aid to the United States would be equivalent to \$5,667 millions. This is between one fifth and one quarter of the estimated \$27,023 millions of lend-lease aid to the United Kingdom. As a proportion of national resources, Britain's contribution of reciprocal aid to the United States came 'within hailing distance' of the lend-lease aid that she received. Professor Allen suggests eleven per cent. of war expenditure as America's lend-lease contribution to the British Empire and nearly nine per cent. of war expenditure as the United Kingdom's reciprocal aid to the United States. Almost identical proportions of the national income—approximately $4\frac{3}{4}$ per cent.—were devoted over the whole period to lend-lease in the United States and reciprocal aid in the United Kingdom.

It would, however, be injudicious to place too much emphasis upon the accountancy of mutual aid. In particular, so far as the United Kingdom is concerned, the main balancing item against American lend-lease aid is the more intensive mobilisation and deployment of British military manpower, the more intensive concentration of the British labour force in war industry, and the corresponding sacrifices of the nation's living standards and its capital inheritance. It must be admitted that the theory of mutual aid was never completely coherent. Lend-lease was introduced originally as a policy 'for the defense of the United States' when the United States were not yet at war. This was strategical theory, whereby the United Kingdom and the other fighting democracies gave their return for American aid by keeping the war away from American shores. Side by side with this theory, however, the original Act of Congress asserted United States property rights in the defence articles and services that were transferred, and looked forward to some kind of repayment. When the United States became an active partner in the war, some people (e.g. Monnet) argued that the theory of proprietary rights was now inappropriate and that the theory of strategical solidarity should henceforward dominate all lend-lease transactions. The American Congress and public opinion would not, however, have accepted any change in the terms of the original act. On the other hand, the theory of reciprocal

aid (as first set out in the Mutual Aid Agreement of February 23rd 1942, between the United Kingdom and the United States) was entirely strategical. This Agreement was the model of the others subsequently signed between the United States and the other Governments of the United Nations.

To attempt in terms of distributive justice a general balancing of the manifold items in the real British-American war account would be quite hopeless. The statesmen and peoples were not thinking in terms of distributive justice between themselves and their Allies when they were fighting the war. The terminus of their thought and action was victory. Mutual aid should be primarily regarded as one of the essential mechanisms for the international division of economic power and effort whereby victory was achieved.

The allocation of economic resources on an inter-Allied basis was not left to the free play of the market. Planning and conscious control were no less essential in this wider sphere than they were in the sphere of the national war economies. Deliberate decisions had constantly to be taken and carried through if strategical requirements and economic resources were to be brought into conformity with each other. The following section will therefore survey the methods of British-American planning for global war.

(ii)

British-American Procedure

Despite what has been said earlier and will be said again about the continuity of experience connecting the Anglo-French and Anglo-American war partnerships,¹ the present survey must begin by emphasising some important contrasts between the earlier partnership and the later one. Before September 1939, Britain and France had bound themselves by treaty under certain clearly specified eventualities to wage war as Allies; they had defined with precision the military support which they would give to each other; they had specified the combined machinery through which their combined war effort would be conducted. At the apex of this machinery was a well-tested institution of the previous war, the Supreme War Council. Such gaps as existed in September 1939 on the economic side were soon filled in during the following months. In short, before there was any serious fighting, the Anglo-French alliance had provided itself with an excellent paper constitution. But the constitution did not work very well; the excellence of its outline had not sufficiently been filled

¹ See above, pp. 193-194 and below, p. 393.

in by detailed preparatory planning and mutual confidence between British and French administrators. These are the bricks and mortar of international administration and without them the best architectural plan cannot be made effective. They were still scarce when the incomplete edifice of the Anglo-French alliance came crashing down.

The foundations of the British-American alliance were laid in exactly the opposite way. Its operational detail was being tried and tested before its obligations and principles were defined or avowed; its bricks were being made and cemented before there was any agreed design for the complete edifice.

As I see it [the Prime Minister wrote in the spring of 1941] we are confronted with the singular situation of two Great Powers entering upon an association before any attempt has been made by either to define the objective or the articles of the association.

The observation was just. The British Commonwealth was at war, America was at peace. The United States Government and Congress had accepted no contractual high-political obligations of any kind towards the United Kingdom. They were still insisting upon their full freedom of action when their action was determined for them by the Japanese attack upon Pearl Harbour and the German and Italian declarations of war. From the passing of the Lend-Lease Act right up to Pearl Harbour, the limits of British-American collaboration were set by the sovereign decision of American democracy to keep out of the war.

So far [the Prime Minister said] all that has been agreed in effect is that Great Britain and her Allies shall be used as the agent to do the fighting, while America furnishes the means in the form of material and money.

Practical collaboration, however, extended far beyond the boundaries of this tacit agreement. Within the limits of 'all aid short of war', the United States Administration intermeshed its policies with British policies with a comprehensiveness which has seldom been surpassed by full military allies and which at that very time was not even approached by the formally Allied Governments of London and Moscow. As will soon be seen, the intermeshing was most striking in the sphere of economic action; but it also took place even within the politically difficult sphere of strategical planning. For the United States had to reckon with the possibility that they might sooner or later become entangled in the war, either by their own decision or by decision of the totalitarian dictatorships. In shaping their plans for defending the still-neutral American democracy, they found themselves inevitably and immediately entangled with the war-torn British democracy. From the summer of 1940 onwards, the British were making available to the Americans, just as if they were allies, full

information about their military and scientific secrets. The Americans on their side were supporting the British with such military supplies as they could spare and were looking for ways and means of freeing themselves from the 'cash and carry' policy which set sharp limits to the growth of this support. Meanwhile, the United States Service Chiefs became convinced that it would be advantageous to discuss with British experts the higher strategy of a war in which America might possibly become involved. The approaches from the American side were at first hesitant; but, in the end, British-American Staff conversations were held at Washington between 29th January and 27th March 1941.

Out of these conversations came the first basic document of British-American strategical planning. It was an hypothetical document. It neither stated nor implied any American commitment, but merely outlined an appropriate combined strategy 'should the United States be compelled to resort to war'. This outline of strategy was a compromise which in one important matter failed to satisfy the British. Whereas both parties were agreed upon the need to 'concentrate on the defeat of Germany and Italy and subsequently to deal with Japan', the British were afraid that an excessively home-keeping policy of United States naval forces in the Pacific might leave too much scope for Japanese initiative in the opening phases of the war. The British would have liked to gain an assurance of American help in defending the 'Malaysian barrier' pivoted upon Singapore—that 'indispensable card of re-entry' whose loss, they argued, would be 'a disaster of the first magnitude, second only to the loss of the British Isles'. The Americans were unwilling to give any such assurance. They were not even planning to hold the Philippines in strength. They were determined to resist any appreciable dispersal of their naval strength in the Pacific beyond the defensive zone of the Pearl Harbour base. However, the British cherished a hope that they might persuade the Americans, later on, to change their minds. For it was agreed that the contact which had been made during the conversations of January to March should thereafter be maintained. A further conference on Pacific and Far Eastern Defence would be held later in the year with Dutch participation. Meanwhile, a British Joint Staff Mission would be sent to Washington as soon as possible and a corresponding American Mission to London, so that the policies and plans of combined strategy might be worked out in further detail and put 'smoothly and rapidly' into effect in the event of the United States joining the war.

Under elaborate 'cover',¹ the two Joint Staff Missions were in due course established. They did not at that time achieve very much. In

¹ To provide this 'cover', the American Mission in London called themselves the 'United States Special Observer Group' while the British Joint Staff Mission in Washington called themselves 'Military Advisers to the British Purchasing Commission in the United States'. It was necessary for the J.S.M. to disguise themselves in civilian clothes.

particular, they did nothing to fill the dangerous gap in defensive plans against the Japanese. They did, however, have opportunity for exercising important influence in the zone where strategy overlaps production.¹ It had been resolved in the January-March military conference to establish 'a method of procedure which will ensure the allocation of military material, both prior to and after the entry of the United States into the war, in the manner best suited to meet the demands of the military situation'. In this recommendation, the thought of the Service Staffs merged with the theory of lend-lease. From the union of strategical and economic planning was born a fundamental principle of the British-American war partnership—the principle of a combined pooling of war-making resources.

The same principle had already begun to emerge, at a lower level, through the day-to-day collaboration of the two national administrations in their policies of supply. Raw materials policy offers some good illustrations. In this field, the needs of the British and the Americans and their capacity to render each other reciprocal service were very evenly balanced. The British, after the fall of France, had increasingly switched their import programmes to North America and were particularly dependent upon American supplies of iron and steel;² nevertheless, they still remained dependent upon other overseas territories, and particularly territories of their own Empire, for the larger part of their raw material requirements. The Americans, despite the great resources of their own country and their close interlocking with Canada, required from the sterling area imports of raw materials no less important than those that they could themselves offer to the United Kingdom. Interwoven with this reciprocal dependence of supply interests was the interdependence of supply and blockade policies: if in some parts of the world the Americans could strengthen British efforts to cut off Axis imports at the source, in other parts British action could secure for the Americans materials that were essential for their 'war-preparedness program'. Moreover, both countries had a common interest in preventing market prices from being raised against them. Within their own Empire and wherever possible elsewhere, the British had entered into long-term agreements which assured regularity of supply at stable prices; they could not tolerate the disruption of these arrangements through the growth of uncontrolled American competition. The Americans, on their side, saw the advantage of co-ordinating their buying policies

¹ This sentence applies to the J.S.M. in Washington; the American Staff Mission in London had very little authority delegated to it.

² In the four years 1940-44, total imports by cash, lend-lease and mutual aid from North America (i.e. the U.S.A. and Canada) of all raw materials *other than* iron and steel, were 8.28 million tons. During the same period (*plus* the unimportant last quarter of 1939) imports of iron and steel from North America were 14.57 million tons, almost exactly on a 50 : 50 basis between lend-lease and cash payment.

with those of the British; failing this, the two countries would bid up prices one against the other and in the end each would be left short of some vital commodities. For all these reasons, the elements of a combined raw materials policy began to be assembled, by one particular transaction after another, long before a Combined Raw Materials Board was thought of. The United Kingdom bought the whole crop of Egyptian flax and made an allocation sufficient for American needs. The United States bought the whole crop of manilla hemp and made an allocation sufficient for British needs. The British were already sole purchasers of many important staples produced within their own Empire; the Americans became sole purchasers of the exportable surpluses of Mexico and Brazil. The two countries, acting together, dominated the raw materials markets of the world. Each country, from its own stock pile, made provision for its partner's needs. Co-ordinated purchase, price control, allocation from one country to the other in accordance with the statistical demonstration of need—all these principles of a combined raw materials plan were clearly emergent before Pearl Harbour. What was still lacking was the central design of the plan and conscious avowal of its theory and purpose.

In the field of industrial production, there had begun to occur before Pearl Harbour a similar intermeshing of policies and mingling of personalities, although the difficulties were greater and the opportunities for reciprocity of service less striking. It was predominantly the British role to be takers of munitions, not givers; according to lend-lease theory, they made their return by fighting rather than by producing. Nevertheless, their experience in fighting and in producing weapons to suit the requirements of their own fighting forces had taught them lessons which could profitably be absorbed by American war industry; if the flow of munitions was from America to Britain, the flow of operational experience was from Britain to America. In the technique of war production, each had something to teach the other.¹ At the beginning, it is true, neither country had made full use of these opportunities. By the theory of 'cash and carry' the British were free to go shopping in the United States as if it were a vast Woolworth store. Provided they were able to pay on the nail, their purchases were of no concern to the United States Administration. In consequence, the British Purchasing Commission had established its headquarters in New York and staffed itself chiefly with commercial men. The placing of British war contracts during the

¹ e.g. thanks largely to the Dewar tank mission to the United States in the summer of 1940, a combination of American chassis and British-Canadian turret was adopted which led ultimately to the U.S. Sherman tank. In 1940, however, the British were in general slow in sending over technical personnel and models of Army weapons. The exchange of experience in Air Force production, through the Joint Aircraft Committee and otherwise, was more advanced.

first period of the war was of indirect value to American defence because it laid foundations for the expansion of American war industry; but it involved little contact between British and American Service personnel, administrators and technicians. It was not until the fall of France that a new situation began to arise. The United States Government then initiated a modest programme of rearmament and established the National Defense Advisory Commission to co-ordinate it. The N.D.A.C. decided to set a limit to the value of the contracts that the British might place without official authorisation. The purpose of this control was to prevent the British from buying up supplies and absorbing industrial facilities which the Americans might need for their own defence; its effect was to compel British procurement officials to argue their case with American officials. The advent of lend-lease carried the process a great deal further, since the procurement of all lend-lease supplies was placed completely in the hands of American Departments—the War Department, the Navy Department and the Treasury. These Departments established 'Defense Aid Committees' to handle the various categories of lend-lease supplies and invited the British to accept representation on these committees. This made it necessary for the British Purchasing Commission, the British Air Commission and the rest to shift the focus of their activities from New York to Washington and to change the character of their staffs. The change did not occur all at once, for there was still plenty of work to do in handling the old contracts; but the new work coming in necessitated continuous administrative and technical collaboration with American officials. Moreover, there arose on the American side an increasing demand for 'user' justification of British munitions requirements. This meant that British Service personnel had to be associated with the British civilian officials who were handling supply problems. Both the military men and the civilians became absorbed in practical day-to-day business with their opposite numbers among the Americans.

There was, of course, some discordance as well as harmony in these close relationships. Even on the British side,¹ there were some divergences of outlook between Service representatives and Supply representatives; for while the former were apt to put their main emphasis upon allocations of American output for the battles that British forces would have to fight in the near future, the latter looked forward to the output that would come from American production lines many months and even years ahead. Fortunately, the task of holding a fair balance between these two points of view was a manageable one; the close co-ordination of Service and Supply policy by the

¹ It is impossible to discuss here the conflicts of interest and view-point and the jurisdictional struggles within the U.S. Administration. Some account of them is given in Chapters 2-4 of *The United States at War. Development and Administration of the War Program by the Federal Government.* (Historical Reports on War Administration, No. 1.)

War Cabinet, reflected as it was in Washington by the quasi-federalistic organisation of the British Supply Council and the brilliant leadership of Mr. A. B. Purvis, was sufficient guarantee that rough justice would be done to both sides. Here it is the production side that needs to be examined. British policy in Washington, formulated in large measure by Monnet's planning mind and propagated by the persistence and persuasiveness of Purvis, made demands upon American industry that were far in advance of contemporary American opinion. The British put forward the idea of a 'Victory Programme' which would stretch American industry as it had never been stretched before. The process whereby Americans in key positions became converts to this idea and, in a collaboration which cut right across national divisions, worked with their British colleagues to transform it into an effective policy, would make—if there were time to tell it—a fascinating chapter of this history. Time must at least be found to explain the concept of a Victory Programme; for it was destined to occupy a central and permanent place in the foundations of British-American economic planning.¹

One cardinal element in the concept may be illustrated by two rows of figures chosen at random from a long statistical document composed in London during August 1941.

United States, United Kingdom and Canada: Output and Supplies of War Equipment

Item	Output		Supplies	
	July–September 1941	October–December 1941	Stocks at June 30, 1941	Stocks at June 30, 1941, plus total output July 1941 to December 1942
AIRCRAFT				
14A. HEAVY BOMBERS				
United States	55	770	119	2,112
U.K. and Canada	198	1,023	154	3,646

The document of which these figures are an exemplar was given various names. Sometimes it was called the Stacy May document; sometimes the Stimson Balance Sheet. These titles did justice to the important part played by two Americans in bringing the document to birth. But it might with equal justice have been called the Purvis document—since it represented a climax of Purvis's labours—or the Monnet Balance Sheet—since it embodied a technique that Monnet had been using far back in the days of the Anglo-French alliance.

¹ The following account is based upon both British official papers and upon some notes jotted down by A. B. Purvis early in August 1941. The notes were recovered from the wreckage of the aeroplane in which he was killed on 14th August. They would be valuable for the biography of him which ought some time to be written.

The best name of all is the one which ultimately stuck—the *Anglo-American Consolidated Statement*.

It was a statement of statistical fact. It made no attempt to set targets for production, but restricted itself to realistic forecasts of output under existing programmes and of stocks up to the end of 1942. Under each head, its estimates were comparative: on one line the figures for the United States, on the next the figures for the United Kingdom and Canada.¹ The contrasts that these figures illuminated were in part contrasts of military experience and Service policy. The Americans, for example, were producing a lower ration of ammunition per gun for field artillery than were the British, but a higher ration per gun for anti-aircraft artillery. They were planning to produce large quantities of light tanks while the British and Canadians were switching over completely from light tanks to medium and heavy tanks; they were specialising on light and medium bombers while the British were specialising on heavy bombers; they were aiming at producing large quantities of small bombs while the British were concentrating increasingly on large bombs. It was useful to put a spot light upon these qualitative differences in production trends. But it was still more useful to demonstrate the quantities. In some items—for example, medium and light bombers, merchant ships, light tanks, army artillery—American output for the eighteen months from June 1941 to December 1942 would exceed British and Canadian output: in a second group—e.g. fighter aircraft, A.A. ammunition, machine guns—the two outputs would be approximately equal: in a third group—e.g. heavy guns, heavy and medium tanks, tank and anti-tank guns—British and Canadian output would exceed American. In overall production, Britain and Canada would throughout the greater part of the period still be ahead of the United States; but towards the end of 1942 the United States would take the lead. However, since they had so much leeway to make up, their stocks of war material would be considerably lower, even at the end of 1942, than the stocks possessed by Britain and Canada.

These cold rows of figures were not very flattering to the United States. Their population was more than $2\frac{1}{2}$ times the size of the combined British and Canadian populations and their superiority of productive capacity was even greater; but they were not as yet seriously fulfilling their promise to be 'the arsenal of democracy'. The Anglo-American Consolidated Statement punctured a good deal of facile oratory. And this precisely was what its authors,

¹ It had originally been intended to give in addition comparative figures for German production and stocks; but subsequently it was decided that such figures (on which besides the British and American Intelligence Services were not always in agreement) were too speculative to merit inclusion in the Statement. Such rough conclusions as seemed to be well established in August 1941 were set down in a separate document which Stacy May took back with him to Washington.

American no less than British, had intended. Purvis had designed it as a lever for shifting the obstacles to the expansion of American war industry and as an aid in securing the allocation of American munitions in accordance with strategic need; Secretary Stimson and his American allies had designed it as a new and effective weapon in a campaign that they had been waging in Washington throughout the summer. Hitherto, the expansion of American war production had been achieved almost entirely by new additions to American productive capacity rather than by switching over existing capacity to the tasks of war; in consequence, the flow of war output was postponed while civilian production boomed. The Office of Production Management,¹ which exercised some rudimentary control over American industry through the instrumentality of a primitive priority system, was in the main reluctant to impose restrictions upon the civilian boom; but Secretary Stimson argued that such restrictions were immediately necessary if war production was to be expanded to the level of war needs. But how were war needs to be measured? The disposition hitherto had been to restrict them to the requirements of visible military manpower in the United States—approximately two million men in training—*plus* the appropriations for lend-lease aid authorised by Congress. Such measurements were not in any way related to the strategical facts. If the United States, in combination with the fighting democracies, were to produce the tools 'to finish the job', it was necessary to take the measure of the job. What was wanted was a statement of production requirements to outmatch the Axis powers.

This conception found expression on the highest political level in a personal message from the Prime Minister to the President on 25th July 1941.

We have been considering our war plans [Mr. Churchill wrote] not only for the fighting of 1942 but also for 1943. After providing for the security of essential bases, it is necessary to plan on the largest scale needed for victory.

Victory, he said, might conceivably come by an internal convulsion or collapse of the enemy, brought about by blockade, bombing and propaganda; but plans must also be made to liberate Europe by force of arms.

If you agree [the Prime Minister continued] with this broad conception . . . , we should not lose a moment in

- (a) framing an agreed estimate as to our joint requirements of the primary weapons of war, e.g. aircraft, tanks, etc.
- (b) thereafter considering how these requirements are to be met by our joint production.'

¹ The O.P.M. had succeeded the N.D.A.C. (National Defense Advisory Committee) and after Pearl Harbour was itself succeeded by the W.P.B. (War Production Board).

These sentences contained the complete conception of a Victory Programme. To establish the facts about existing production and stocks, the statisticians of the two countries had already been called in. To determine the extra output required to outmatch the Axis powers, the military planners must now be called in. To fill the gap between existing production and the requirements for victory, orders must thereafter be given to government departments and industry by the highest political authorities of the associated democracies.

The United States Government endorsed this conception. On 3rd September, Mr. Winant, writing from the American Embassy in London, gave the Prime Minister the names of the Americans who would be going on the Anglo-American mission to Moscow and informed him at the same time that high-ranking staff officers would attend a preliminary conference in London to discuss with their British colleagues long-term production requirements and the allocation of existing production. It had not been part of the original plan to telescope discussions on the Victory Programme with the discussions on aid to Russia; but the two subjects fell conveniently together. The new and heavy commitment to sustain Russian resistance¹ underlined the need for a rational procedure of allocating resources from the combined British-American pool and for planning a productive effort which would make the pool large enough to satisfy the three major claimants upon it—belligerent Britain, belligerent Russia and rearming America.

The work achieved in the London and Moscow discussions fell short of full comprehensiveness. The supplies to be made available for Russia up to 30th June 1942 were listed in the first Moscow Protocol. As an outcome of the London conference, military requirements in the British sphere of strategical responsibility (as defined in the Washington Staff Conference of January–March) were enumerated up to the end of 1942 in four annexes: (1) Royal Navy and Fleet Air Arm, (2) Army, (3) Air Force, (4) Merchant Shipping. The missing element in the Victory Programme was a statement of requirements in the United States sphere of strategical responsibility. The United States representatives at the London conference were not ready to submit figures; it was in consequence decided that the American requirements should be worked out subsequently in Washington.

Even with this notable gap, the demands that the military planners made upon British-American war industry were truly formidable. And, since the limit to the upward climb of British industrial production could already be forecast, these demands were predominantly a challenge to American industry to launch itself at last upon the strenuous whole-hearted mobilisation of its war strength. This was

¹ In immediate short term, the new American commitments towards Russia involved reduced deliveries to Britain—'a heavy reduction of our expectations,' as Lord Beaverbrook said. Moreover, immediately after Pearl Harbour, Britain made good out of her own production part of the shortfall in American supplies programmed for Russia.

precisely what the apostles of the Victory Programme, both American and British, had from the very beginning intended.

It seemed for a time as if their hopes would be disappointed. Autumn drew into winter and nothing new or important seemed to be happening at Washington. Then came Pearl Harbour. The faith and works which had brought the Victory Programme to birth achieved their reward on 6th January 1942, when the President announced to Congress the 'letter of directive' that he had sent to the responsible departments and agencies of the United States Government—to produce in 1942 60,000 airplanes, 45,000 tanks, 20,000 anti-aircraft guns, 8,000,000 deadweight tons of merchant shipping: in 1943 to produce 125,000 airplanes, 75,000 tanks, 35,000 anti-aircraft guns, 10,000,000 deadweight tons of merchant shipping. The production targets for American democracy, the greatest industrial power on earth, were at last set high.

The British-American partnership could not indefinitely have survived on the basis of the limited liability of one partner and the unlimited liability of the other; had it not been completed, it must sooner or later have been relaxed. However, when Pearl Harbour did complete it, its structure took shape with a rapidity which would have been quite inconceivable had it not been for the work of preparation—in part an unconscious growth, in part the product of conscious planning—which has been reviewed above. To consider further the example that was last discussed: 'victory programming' ceased henceforward to be the tactical weapon for a specific occasion and became instead a continuous activity of the associated Governments. Each of its three elements endured in permanence. On the side of supply, the Anglo-American Consolidated Statement, amplified and kept up to date under the oversight of the Combined Production and Resources Board, provided the objective data which were indispensable for allocating munitions in accordance with strategical need and for constructing realistic production programmes. On the requirements side, the Combined Chiefs of Staff, with their ancillary organisations continuously at work, defined the strategical objectives for which munitions must be both allocated and produced. For raising production programmes to the level of strategical requirements, or for lowering requirements to the level of production possibilities (not to mention the reshuffling of output that was necessary to meet the rapidly changing conditions of warfare) the two administrations maintained continuous contact with each other at all levels, both through the mechanism of the Combined Boards and otherwise. The final decisions were, of course, taken by the supreme executive authority in each country.

Naturally, it is not suggested that perfect institutions and procedures of inter-Allied collaboration were achieved all at once or, indeed,

that they were ever achieved. Three things need to be stated in rather crowded juxtaposition with each other: first, that invaluable preparatory work had been done before Pearl Harbour; secondly, that Pearl Harbour, by a decisive stroke, pushed this work a long way further forward; thirdly, that the work, even then, needed to be expanded and deepened in a continuing process of effort and experiment amidst the tests of war.

The interweaving of these strands may possibly best be made clear by reverting to simple narrative. For starting point, we may take the embarkation of the Prime Minister at a Scottish port on 13th December 1941. It was from a Scottish port that he had embarked four months earlier on the *Prince of Wales* for his Atlantic Charter meeting with President Roosevelt at Placentia Bay in Newfoundland. But the *Prince of Wales* was now lying at the bottom of the sea off the east coast of Malaya; it was in her sister ship, the *Duke of York*, that he made his December journey. This time his appointment with the President was in Washington. He was accompanied by Lord Beaverbrook, the Chiefs of Staff, and a party of experts larger than that of the previous voyage. The Prime Minister and his party constituted, in fact, a kind of itinerant Defence Committee of the War Cabinet, competent to handle the problems both of operations and supply.

By the time they reached the United States they had got through a great deal of work. They had, to begin with, produced a document which the American Chiefs of Staff discussed paragraph by paragraph with their British colleagues. From these discussions emerged the combined war plan of the new alliance. For Germany, if not for Japan, this plan was destined to be carried out in subsequent years almost to the letter. They had, moreover, outlined a complete design of the machinery whereby the new alliance would order its business. Each of the two combining countries, they believed, needed to equip itself with an adequate national organisation complete in its component parts, both strategical and economic, and properly co-ordinated under responsible political authority. The interweaving of these national organisations could then be achieved through a series of joint organisations, some for action in short term, others for long-term preparations. The institutions to be set up on a combined British-American basis were listed as follows:

1. Permanent joint planning organisation (all Services).
2. Joint supply board, to deal with production, raw materials, allocation, etc.
3. Joint allocation committee to deal with naval, military and air weapons.
4. Joint shipping committee.
5. Perhaps some other joint bodies, e.g. for economic warfare.

The decisions taken at the Washington Conference embodied a significant modification of terminology: the word 'joint' was restricted to inter-Services collaboration within one nation; for international and specifically for British-American collaboration, the word 'combined' was chosen. In substance, the structure of 'combination' that was agreed upon followed the British proposals very closely. Most important of all was the emergence of the Combined Chiefs of Staff as a practical working institution. For a time, the British proposal for a single combined strategical directorate was deflected by an American proposal to establish an 'appropriate joint body' to supervise strategy in one area only, the short-lived ABDA area;¹ but it was in the end agreed that there would be danger in building 'a pyramid of authorities' to oversee operations in separate areas. The unity and balance of combined effort in a global war would be ruined if strategical planning and direction were parcelled out among a number of *ad hoc* bodies, each imprisoned within its own partial view of the war and each fighting for its own hand. It was instead judged essential to impose upon a single body, the Combined Chiefs of Staff, undivided responsibility for advising the associated Governments on war policy in all areas.

The Combined Chiefs of Staff rapidly developed a sound working practice. There was no fusion of the two national Staff organisations; each continued to act as before within its own government framework. The two national bodies came fully into combination only when they were assembled in the periodical conferences which became for the remainder of the war the landmarks of strategical decision. At each of these conferences, the Combined Chiefs examined in joint session papers originating from the planning staff of one nation or the other. Between each conference and its successor there was an organised continuity of thought and decision. It was centred upon Washington. This was a reversal of the arrangements foreshadowed before Pearl Harbour; for at the conference of January-March 1941 it had been agreed that strategical control of the combined war effort—should America join the war—ought to be double-centred, in Washington and London. However, it would in practice have been impossible to carry on strategical discussion in two places at the same time; one place or the other had to be chosen and the decision to choose Washington was a wise one, seeing that the British were always readier to delegate authority to their overseas representatives than the Americans were. The Joint Staff Mission in Washington, representing the British Chiefs of Staff, held weekly meetings with the American Chiefs of Staff. This weekly conference was the embodiment, between full conferences, of the Combined

¹ ABDA was the American-British-Dutch Area in the Far East under General Wavell. It was the first experiment in the series of combined commands.

Chiefs of Staff. It had common offices, a combined secretariat and a combined planning staff—though the latter was seldom employed to capacity except during full conferences, when it submitted papers along with those of the national planning organisations.

Three other combined institutions emerged from the Washington Conference of December 1941–January 1942.¹ First, there was a Munitions Assignment Board, operating under the Combined Chiefs of Staff but divided into a Washington committee and a London committee, each of which was put under a civilian chairman. The Munitions Assignment Board was established to give effectiveness to the principle that ‘the entire munitions resources of Great Britain and the United States will be deemed to be in a common pool’ from which assignments must be made, both in quantity and priority, in accordance with strategic needs. The second new institution was a Combined Shipping Adjustment Board, which will be discussed in the next chapter. Finally, it was agreed at the Washington Conference to establish a Combined Raw Materials Board with headquarters in Washington. It would be the function of the Board to plan the development, expansion and use of all raw material resources under the jurisdiction or control of the two Governments and to make such recommendations as were necessary for executing the plans: these recommendations, it was stated, ‘shall be carried out by all parts of the respective Governments’. Outside the limits of direct British or American legal control, the Combined Raw Materials Board was instructed to pursue by ‘collaboration’ the same objectives of developing raw material resources and procuring them to serve the combined war effort.

The Washington Conference had established a good part of the machinery outlined in the British proposals; but it had left certain gaps. If one looks at the general picture from the point of view of shipping—which up to the early spring of 1943 was the most dangerous British-American shortage—there was need for a Combined Food Board alongside the Combined Raw Materials Board; for food and raw materials together constituted the overwhelming bulk of United Kingdom import needs. From 1943 onwards the need for a Combined Food Board would be even greater; for in that later period food shortages were destined to reflect not merely a scarcity of shipping but an insufficiency of production at source. However, the failure to institute combined planning for food was not the only, nor the chief omission of the Washington Conference. There was a big gap in the arrangements made for planning war production. As the

¹ Their composition and functions were publicly set out in Cmd. 6332 (January 1942). When Mr. Churchill submitted the draft to the War Cabinet, he quoted Napoleon's maxim—‘A constitution should be short and obscure’. This document, however, was both short and—in its fundamental principle, the pooling of resources—clear.

British Supply Council soon pointed out, effective 'victory programming' contained the following elements :

determination of strategic concept and its expression in military requirements—translation into terms of raw materials necessary for their production—production itself—assignment of finished weapons—shipping.

At Washington, all these elements except one had been recognised. In the institutional structure that had been set up there was a gap between the Combined Raw Materials Board and the Munitions Assignment Board. 'Production itself' had not been provided for in the system of combined organisations.

In circumstances that will be explained below, these two gaps were filled a few months later. A Combined Food Board and a Combined Production and Resources Board were established in June 1942. Thereby, the proposals for combined organisation that had been drafted on board the *Duke of York* were completed in full.

It must not, however, be imagined that the working constitution of the British-American alliance (if the phrase may be allowed) was merely or chiefly the product of a single well-drafted paper plan. Once again, it is necessary to recall the long period of trial and error, of natural growth and deliberate planning, during the eighteen months before Pearl Harbour. To cite once more the example of raw materials: on the eve of the Washington Conference and while it was in session, the British and American officials who, in one particular transaction after another, had already carried so far the principles of combined procurement and allocation, were at work on schemes designed to give full regularity and formality to their hitherto unsystematised collaboration. What they had in mind was the idea of a permanent Raw Materials Conference. However, the idea which took shape at the higher level was better than this. The Conference would have been unwieldy; but the two-man Board possessed an almost inspired simplicity, which was in no way impaired when three-man Boards were created later on by calling in Canada. In the sphere of raw materials policy as elsewhere, this streamlined construction quickly became an assembly point for all the techniques that had been proved and all the experience that had been gained during the past months of preparation.

In one important respect, the new institutions took shape in a manner that was less logical and tidy than the British planners had forecast. As a preliminary to the dovetailing of British and American organisations, they had assumed the establishment of a complete and well co-ordinated system of organisation within each of the two countries. Here, of course, they were reasoning from British experience; for, as has already been seen, a mature and effective system of War

Cabinet control had been established before Pearl Harbour.¹ To adapt this system to the requirements of the American alliance, it was sufficient to make the newly established Ministry of Production the focal point of business within the sphere of the Combined Boards. It might have seemed that the Minister (Mr. Lyttelton) would find his opposite number in Mr. Nelson, the Chairman of the War Production Board; but this expectation would have under-rated the vigour of jurisdictional conflict between the departments and agencies at Washington and over-rated the capacity of any single authority to make its nominal powers effective.

It is for American historians to tell the story of how co-ordination began to be achieved amidst the interdepartmental struggles that were rife in Washington during 1942:² here it need only be pointed out that the orderly pattern of the Combined Boards was at best an anticipation, rather than an expression, of a similar order within the American Administration. All the same, the Combined Boards offered levers which could be used by those Americans who saw the need for a more comprehensive and balanced system of planning for their own war economy. The studies instituted by one Board or another frequently identified dangerous frictions, unbalances or shortcomings of the common war effort which could only be rectified by action taken in Washington. When Washington did decide to take such action, it was sometimes able to make good use of British war experience: for example, that experience was drawn upon in November 1942 for establishing the Controlled Raw Materials Plan³—the first effective instrument that the Americans discovered for allocating their economic resources amongst the competing claims of war.

At this point it will be useful to pause for some reflection upon the real terms of the British-American war partnership. In one sense, it contained an inequality reminiscent of the Anglo-French alliance. The United States possessed over Britain an even greater superiority of potential war-making resources than Britain had possessed over France. Washington, therefore, took the place that London had earlier held as the headquarters of inter-Allied planning and decision. The British, like the French before them, became 'the visiting team'. There were, however, some important weights in the opposite scale. The British war economy was highly developed when the American one was still primitive. Even when the effort of both countries was at peak, the British were more tightly mobilised than the Americans; if their resources were smaller, they were making more intensive use of them. This extra effort produced its effect on

¹ See Chapter VIII.

² The story has already been told in part in *The United States at War. Development and Administration of the War Program by the Federal Government* (Historical Reports No. 1) *passim*.

³ cf. *ibid.* p. 306.

the battle-fronts. As we saw, almost until the end of the long period now under review, British army deployment was roughly at parity with American; at the beginning of the period it was, of course, very much greater.¹ Finally, there was the advantage that has already been pointed out in the British machinery of planning and government co-ordination.² All these considerations together may help to explain what otherwise might have seemed paradoxical—that, while Washington was chosen as the planning centre, the initiative in such plans as have so far been described came chiefly from the British side.

However, in tracing the evolution of the Combined Boards as working institutions, it would be difficult and positively misguided to attempt to disentangle British from American initiative and action. More important than the separate national influences was the growth of a common attitude to the salient problems which the official staffs of the Boards—working together in the same offices with common terms of reference—were called upon to handle. Illustration may be given from the operations of the Munitions Assignment Board. It was the body most closely linked with the central institution for strategic planning, the Combined Chiefs of Staff. At the same time, its decisions were of immediate and great consequence to the war-economic structure of Britain, since the disposition of British manpower was bound in large measure to be governed by the assignment of munitions out of the common pool.³

The pool was not placed under a single centralised management. The assignment of munitions could only be satisfactorily achieved on the basis of very full information about the operational situation, the state and equipment of the troops, the requirements for training in each separate theatre of the war, and so on. To have gathered all this mass of information into one centre would have necessitated an immense staff largely duplicating the work of the Service Departments both in Britain and the United States. The facts of geography demanded that the Munitions Assignment Board should be split into two parts. There was a Board in Washington and another in London. Later on, a separate Board for the assignment of Canadian production was established at Ottawa. Assignment committees were also established in Australia and India when these countries began to

¹ See p. 367 above.

² cf. *The United States at War*, p. 132. 'The experience with these boards frequently demonstrated to the American members the admirable nature of the staff work and the excellent co-ordination of the policy lines available to the British members. The British members and staff were seldom, if ever, uninformed on recent top-side decisions and never in pursuit of contradictory major policies. The British, moreover, appeared to be acquainted with major military strategy and programs of which our members including the military were often innocent.'

³ The C.M.A.B. only assigned new production. If the war had lasted very much longer after August 1945, there would have been an important problem of redeploying weapons between different war fronts.

produce disposable surpluses of weapons or ammunition. On these committees, British and United States representatives sat with representatives of the producing country.

However, it was the Boards in Washington and London that counted for most. There were about forty claimants upon the Washington-London pool of weapons. Since endless confusion would have arisen if each claimant had been free to submit his requirements in both places, the whole body of claimants was divided into two groups, a British group and an American group. With some exceptions,¹ the members of the British Empire and the European Allies fell naturally into the British group because they were equipped for the most part with weapons of British type, and, in addition, were closely associated with British forces in the field. Equally naturally, the South American Republics and China fell into the American group. Russia, as has been seen, was a special case; her claims were separately negotiated and defined in a series of Protocols.

The procedure of the London and Washington Boards was as follows:

1. Each of them ascertained the requirements of all members within its own group.
2. Each of them, so far as it was able, satisfied these requirements from the stocks of munitions produced at home.
3. Each of them thereafter approached its partner with the purpose of making good the deficiency in its own resources.

Between the London and Washington Boards there was a genuine two-way traffic of assignment. From time to time Britain was able to supply important items of equipment in which the United States was deficient—for example, radar equipment. A pleasant exchange of compliments took place between the London and Washington Boards after the successful invasion of North Africa: the Americans thanked their British friends for supplies furnished to the United States Forces; the British thanked their American friends for the Sherman tanks and other equipment which had helped the British Army to win its final Libyan campaign. Moreover, the constant and pressing necessity for stringent economy in shipping space was the occasion for very strenuous British efforts to supply the growing American forces in the United Kingdom with maximum quantities of general engineering goods, constructional material,

¹ e.g. for Australia and New Zealand it was finally ruled that they should submit their requirements for Army and Navy equipment to the London Board and for Air equipment to the Washington Board. For Turkey—an ally of Britain and an important element in a theatre of British strategical responsibility, but not a member of the United Nations—it was ruled by the Combined Chiefs of Staff that all bids for equipment, both in London and Washington, should be submitted by the British. This decision did not, however, interfere with the processes of lend-lease accountancy.

accommodation, stores, clothing and other equipment. It was here that reciprocal aid found its greatest scope.

When all this has been said, it remains true that the balance of munitions assignment was heavily in favour of the Washington Board; for it controlled the total surplus on which the United Nations as a body and the United Kingdom itself had need to draw.¹ But in 1942 it might well have seemed mockery to talk of a surplus. It was hardly possible in that year to raise the horizon of munitions assignment more than a month or two ahead. There was fierce day-to-day competition for supplies which everywhere seemed inadequate in relation to need. Nor was the definition of need an easy matter. The American Service Departments were naturally anxious to build up as rapidly as possible the military, naval and air power which ultimately would exercise the predominant weight against German-dominated Europe and Japanese-dominated Asia. There was, however, real danger that Germany and Japan might win the decisive battles while the Americans were still building up their predominance of power. The British representatives on the Washington Board and the British Chiefs of Staff continually maintained that the first charge on the munitions pool must be

the provision of full equipment for existing units in available and active theatres of war with such orders of priority as may be assigned to these theatres.

This was an argument for giving priority to the immediately impending battles rather than to the more distant campaigns. It was at the same time an argument for British claims as against American claims. The argument was not one that could win easy success in Washington. For a time after Pearl Harbour, the British cash contracts and lend-lease follow-up orders² were mainly diverted to the use of the United States.

The Munitions Assignment Board in Washington, like its counterpart in London, did most of its business in committees—particularly the three big standing committees for ground forces, navy, and air. The American Service representatives on these committees expected their British colleagues to justify in meticulous detail every statement of British requirements; consequently there had to be a constant cabling to London for information wherewith to answer the innumerable American questions. There was another and more deep-seated impediment—the lack of continuous and concrete strategical guidance. For although a general strategical plan had been agreed in the Washington Conference and although the Washington Board had

¹ For examples of important items of British equipment supplied predominantly or in large measure by assignment from the Washington Board, see p. 373 above.

² See Chapter IX.

received a general instruction to make assignments in the light of strategic policy, changing operational conditions and realities of production, a good deal of time elapsed before strategic policy was closely defined in terms of time and place, or before the realities of production were adequately assessed. By April 1942 the British were ready to submit their Order of Battle for 1943; but at the end of 1942 the Americans were still not ready to submit theirs.¹ The instruction to assign munitions in the light of strategic policy gave very little precise guidance so long as strategic policy itself remained so largely undefined. There were times when the British took almost a despairing view of the munitions assignment procedure and felt tempted to conclude that Washington would never do justice to the immediate and urgent requirements of British forces deployed on active fronts. But, by the time the Board had completed its first year of life, it had by its own good performance effectively answered this pessimism. At the beginning of 1943, the British representative on the ground forces committee in Washington reported to London that reasonable British claims were almost always satisfied, provided they were given a convincing operational backing.

The chairman of the Washington Board was Mr. Harry Hopkins. His personality and close association with the President no doubt contributed a good deal to the equitable and efficient operation of the Board. Another factor in its growing success was the work of its Statistical Analysis Branch under the direction of Mr. Lubin, who had in time past worked in close association both with Mr. Hopkins and the President. At each weekly meeting of the Board Mr. Lubin presented statistical data relating to stocks, production, and requirements of munitions. It was his practice to concentrate every week on a single outstanding problem—small-arms ammunition, changes in tank programmes, changes in aircraft programmes, the use of shipping, etc., etc. His golden rule was simply to set out the facts clearly in his tables and graphs, to put the spotlight on the discrepancies and the disparities, but never to propose a remedy. That was a matter for the chairman to take up subsequently with the departments and other interests.

The Munitions Assignment Board did its work well and introduced an essential element of order into the conduct of the war. The intensity of British mobilisation, the proportions in which British manpower was to be divided between the Services and industry, could not have been determined in advance without reasonably firm knowledge of the

¹ On the occasion of General Marshall's visit to London in March 1942, the British and American Chiefs of Staff had agreed to draw up a combined Order of Battle. The British Joint Planning Staff did their part of the work within a month. They estimated *inter alia* the British, Dominion and Allied (European) land forces which would have to be provided by April 1943 with British types of equipment: these were very roughly equivalent to 25 armoured divisions and 125 infantry divisions. They also estimated that by April 1943 Britain, the Dominions and the European Allies would have ready 8,600 first line aircraft—provided the planned supply of U.S. aircraft was maintained.

supplies that would be allocated to Britain from the Washington pool.

But allocations from the pool were themselves ultimately governed by the quantity and quality of the inflow into the pool. Underlying the problem of munitions assignment was the problem of munitions production. It will be recalled that the institutional structure erected at Washington in January 1942 contained a gap on the side of production. A Combined Raw Materials Board had been set up, but nothing else. The lack of an agreed forum for the joint examination of production programmes soon made itself felt.

The British already had much experience of the problems involved in translating strategical plans into military requirements, in adjusting these requirements to the possibilities of production, and in achieving thereby a production programme that was well-balanced in its component elements and feasible in its total. Even before Pearl Harbour, the machinery for handling these problems was rendering good service; after Pearl Harbour it was further improved through the Joint War Production Staff, a committee of Service and supply ministers meeting with their experts under the chairmanship of the Minister of Production. On the American side, there was no comparable organisation or experience. The problems were new, the machinery for handling them still undeveloped.

There was, at first, no more definite guidance to the American effort of production than that given in the famous 'objectives' announced by the President in January 1942. By this announcement, the sights were at last set high for American war industry. This was precisely what the planning minds in Washington, British and American alike, had long been working for. Nevertheless, the same people—for example, Mr. Stacy May and his colleagues in the Statistics and Programmes Division of the War Production Board—were very soon working to get the 'objectives' scaled down. In their change of emphasis there was no real inconsistency. Before Pearl Harbour American industry was falling short of the needs of war because it was attempting too little. After Pearl Harbour a different danger arose. American war industry began to attempt too much.¹

A war effort may fail either because the production sights are set too low or because they are set too high. For example, it was calculated by the Ministry of Production in the autumn of 1942 that the United States and the United Kingdom were committed between them to produce in 1943 enough tanks to equip 200 armoured divisions, with 100 per cent. scale of reserves for each division. It was calculated that they were planning to produce in the same year 22,000 million rounds of ball ammunition—although the Desert

¹ cf. *The United States at War* (Historical Reports No. 1), p. 299. 'A major step in getting war production on a maximum basis, strangely enough, was the reduction of the grand totals sought in a given period.'

Armies of the British Empire, in all their Egyptian and Libyan campaigns from 1940 to 1942, expended only 200 million rounds.¹ If the combined resources of the United Kingdom and the United States (including their resources of ocean-going tonnage) had been unlimited, such profusion of specialised output might have done little harm, provided it was not bought at the expense of quality. But, since industrial capacity and manpower were not unlimited, since rubber and some other essential materials were critically deficient, since ships were scarce, the super-abundance of tanks and ball ammunition and all the rest of the over-produced items must inevitably be paid for by a deficiency of ships or landing craft or other essential equipment. The immense expansion of United States Army programmes, in particular, was threatening to engulf vast resources in the production of equipment which would not be required for years to come and which it might never be possible to ship overseas. Meanwhile, in the campaigns immediately ahead, the fighting forces of America and the British Empire were likely to find that they had been deprived of urgently necessary equipment through the waste of resources caused by misguided efforts to provide them with 'the maximum of everything'.

These were predominantly American problems, and it is for American historians to explain in detail how they were tackled. But indirectly they were British problems also; since the allocation of resources in the British war economy could be given its final shape only within the context of a combined British-American war-economic plan. The most effective way of making that plan realistic would have been to define for specific periods ahead the Combined Order of Battle and the combined production programme necessary for its realisation. As has been seen, attempts were made to do this; but in 1942 they did not succeed.² However, in partial compensation for the failure, and in the hope of winning success later on, a new British-American institution was created. The Combined Production and Resources Board was set up in June 1942. It was a two-man Board, composed of Mr. Lyttelton, the Minister of Production, and Mr. Nelson, chairman of the War Production Board. It was located in Washington, where Mr. Lyttelton was permanently represented by Sir Robert Sinclair.³ The directive issued to it by the President and the Prime Minister gave it two duties to perform: first, to combine the production programmes of the two countries into a single programme

¹ By far the greater part of the planned production was American: 20,000 million rounds against 2,000 million of British production. In the previous war the U.S. Expeditionary Force had consumed one million rounds.

² See above, p. 397.

³ There was also a London Committee of C.P.R.B. but it dealt with comparatively subsidiary matters, chiefly adjustments in the U.K. production programme to meet the needs of U.S. Forces in Britain.

adjusted to all the relevant production factors and to the strategic requirements of the war as indicated by the Combined Chiefs of Staff: secondly, in collaboration with the Combined Chiefs of Staff, to assure the continuous adjustment of this combined programme to the changing military requirements.

The establishment of the C.P.R.B. did not magically solve the intractable problems discussed above. The duties laid upon the new Board, if read literally, could not possibly be fulfilled; for, like all the other Combined Boards, it had power merely to make recommendations, not to take decisions nor to issue orders. It was only by decision and command of the two sovereign Governments that the two national production programmes could be combined in a single programme realistically related to strategical plans. So long as the two Governments postponed their task, the Board was compelled to limit the scope of its work. It focused attention upon major 'unbalances' of the production programmes and suggested remedies for the most dangerous 'bottlenecks', thereby providing a lever for those British and American reformers who were struggling to bring order out of disorder. Sometimes it prepared the way for direct inter-government discussions on a high political level. For example, when the President took direct action in October 1942 to cut back the inflated programmes of the American Service departments, the British Minister of Production crossed the Atlantic in the hope of achieving definite enough agreements—about production programmes, the assignment of munitions, and shipping—to enable the British finally and irrevocably to allocate between 'fighting and fabrication' their last reserves of manpower. Agreement was reached. It was confirmed in an interchange of messages between the President and the Prime Minister. Thereafter, it had, if possible, to be speeded 'down the line' in Washington. Here again the C.P.R.B. was called upon to provide 'leverage'. Its work was valuable, but should not be over-valued. If difficulties which in 1942 had sometimes seemed insuperable began in 1943 to be overcome, this was due above all to the immensely swelling flood of American production.

The Combined Boards cannot be understood merely by meticulous study of their paper constitutions; they can only be understood through study of their operation. That is why it has proved impossible to avoid entanglement in the narrative of events during the first year of the Boards. The narrative has been both superficial and excessively selective and there is no space to correct these faults. Even so, it should at least have made one thing clear. The Combined Boards were no more than mechanism; they did not by their own power make the British-American partnership an effective thing. Even as mechanism, their importance was not exclusive and frequently not predominant. British-American 'combination' was in existence

before the Combined Boards were created; it continued its existence, outside and beyond them, after they had been created. Its dominant characteristic was a reciprocal inter-penetration of the two national administrations, a building-up at many levels of personal acquaintance—fortified, sometimes, by personal friendship—and a common fund of experience and knowledge. Here were the foundations of this unique war partnership. They had been laid before Pearl Harbour; after Pearl Harbour they were strengthened and extended.

The system of Combined Boards was built into the growing edifice; it was not by itself the whole edifice. For example, the Raw Materials Department of the Ministry of Supply was the administrative instrument for carrying through British raw materials policy. It directed the work of the British Raw Materials Mission in Washington. The head of that Mission, Sir Clive Baillieu, was British representative on the two-man Combined Raw Materials Board. A great part of his work was done purely in his national capacity. By agreement between him and his American colleague, Mr. Batt, the C.R.M.B. was called into action only when particular shortages needed to be coped with by combined planning; otherwise, policy remained with the two national authorities. It is significant that the C.R.M.B. cut its teeth on the acute problems of raw materials scarcity created by the sudden Japanese conquests. Like the rest of the Combined Boards, its task was to assemble and rearrange the facts of urgent common concern within its own sphere so that they might be presented to the national authorities under the aspect of common strategic interest. Each Board, within its own sphere, acted as a 'control point'; it had no executive power, but it had power to compose the 'complete United Nations picture' of requirements and resources and to make recommendations to the British and American Governments for the efficient use of these resources. This power to recommend is vastly different from the power to decide. It should not, however, be underrated. Recommendations of the Combined Boards were often the indispensable preliminary to decisions—at any rate, to sound decisions. Moreover, since the recommendations were almost always limited to problems which neither of the two Governments could handle effectively by itself, and since they were invariably prepared in close consultation with the national authorities who would be responsible for putting them into effect, they were in fact put into effect. Sometimes, it is true, there was obstruction, delay and a growing feeling of frustration. It then became necessary for higher authority to intervene; Mr. Lyttelton was sent to Washington, or the Prime Minister and the President agreed to meet. Then the intractable problem was resolved by a new decision—on strategy, on munitions assignment, on production programmes, on shipping, sometimes on all these things at the same time. In the process of implementing the

new decision, similar obstacles were sometimes encountered and similar methods had to be employed. Nevertheless, all major recommendations of the Boards became in the end decisions of the two Governments and all major decisions were in the end fulfilled. Behind them was the ultimate guarantee of the supreme executive power in each country; for the Prime Minister spoke with the authority of the War Cabinet and the President combined in himself the chief civil and military authority of the United States.

It is worthy of note that the British-American alliance did not provide itself with any formal organ of supreme control. This was not a matter of accident but of conscious decision. All the arguments of tradition and experience might have seemed to favour the establishment of a Supreme War Council. The Anglo-American Staff Conference of January-March 1941 had in fact recommended that this high controlling authority should at once be set up if and when the United States joined the war. But, when they did join it, the War Cabinet showed itself positively alarmed by rumours coming from Washington to the effect that the Americans wished too pedantically to copy inter-Allied constitution-making of the past. In fact, the rumours were without foundation. The Americans were no more anxious than were the British to jeopardise the flexible and natural growth of British-American co-operation by clamping upon it a political directorate of excessive formality. Just as the two administrations had already been knitting their work together at the nodal points of raw materials policy, munitions assignment, shipping, and the rest, so also had they been coming together at the high policy level through the special relationship that had been growing up between the Prime Minister and the President. The exchange of telegrams between Mr. Roosevelt and Mr. Churchill had begun when the latter was still First Lord of the Admiralty in the Chamberlain Government. It continued when the 'Former Naval Person' became Prime Minister. Supplemented by the special conferences at which President and Prime Minister met each other with their attendant experts, it was destined to grow almost to the status of an institution. In practical efficiency it was preferable to the more formal, less flexible procedure of a Supreme War Council. Nor was it in any way less constitutional; for the President spoke with the authority committed to him by the American people as head of the executive power and Commander-in-Chief of the armed forces, while the Prime Minister spoke with the authority of the War Cabinet, which was itself upheld by the approval of Parliament.¹

It might perhaps have been argued that a Supreme War Council was necessary in order to associate the other Allies in the higher

¹ The practice should be noted whereby the drafts of important telegrams from the Prime Minister were submitted to the War Cabinet for examination and, if necessary, amendment.

direction of the war. But this was precisely what the British and the Americans wished to avoid. Although by their political philosophy they were committed to the representative principle, they knew that it could not be applied with doctrinaire impatience amidst the dangers of war. A Supreme War Council representing every member of the United Nations was inconceivable; even if it had acted by majority decision instead of insisting upon unanimity, it would have slowed down action and jeopardised victory. Even a more narrowly representative Supreme War Council might well have proved unworkable. The inevitable differences of opinion or emphasis which arose between Britain and America about the higher strategy of the war were on each occasion resolved in sufficient time by agreement of the Combined Chiefs of Staff; but, if Soviet Russia and China had been included, it might have proved impossible to get agreement. Yet some co-ordination of strategy and effort had to be achieved with these Powers, with Russia especially. Once again, the flexible solution was judged the more practical one; once again, the solution had been prepared by British practice before the United States joined the war. In the summer of 1941 the Prime Minister had opened with Marshal Stalin a parallel correspondence with the one he was conducting with the President. He had more recently opened a third correspondence with General Chiang Kai-Shek. The exchange of telegrams between the executive heads of States—supplemented, as opportunity might offer and occasion demand, by personal meetings—offered a workable alternative to the dangerous formalities of a cumbrous permanent body.

Moreover, if the representative principle had been accepted for the political and strategical direction of the war, it would have been difficult to exclude it from the constitution of the Combined Boards. As has already been seen, the difficulties of bringing the economic policies of America and Britain into focus were by themselves formidable enough; unwieldy multiple-nation Boards professing to represent the complete society of the United Nations would have found their task quite unmanageable. Admittedly, there was a danger that Britain and America, by taking upon themselves the responsibility for determining not only their own contributions and receipts but those of other people, might lay themselves open to the charge of high-handedness and provoke not only resentment but resistance. The danger was in part avoided through each country making provision for consultation and agreement with those nations of which it was the natural leader. The United States performed this role with the Latin-American countries and China; Britain performed it with the majority of Commonwealth countries. For example, the Empire Clearing House in London worked out the statement of British Empire supplies and requirements of raw materials and the British

member of the Combined Raw Materials Board used the statement as essential data for the recommendations to be made in Washington. The London Food Committee performed a similar function in relation to the Combined Food Board.

These arrangements did not, however, fit the needs of Canada. Her situation was highly complex. She was a member of the Commonwealth and a belligerent when the United States were still neutral; but in 1941 she joined the United States in what might be called the North American Combined Board system, which included both a Defence Board and an Economic Board. From 1939 to 1945, Canadian troops fought alongside British troops and used British-type equipment; Canadian factories helped to produce this equipment. On the other hand, Canadian industry was highly dependent on American tools and components. For raw materials, the two countries were reciprocally dependent upon each other; in the summer of 1941 they had set up, within the framework of their Joint Economic Board, a Materials Co-ordinating Committee of their own. It was therefore natural that the American member of the Combined Raw Materials Board should handle, on Canada's behalf, the statement of Canadian supplies and requirements. But elsewhere the importance and special situation of Canada justified her separate representation. In November 1942 the Dominion became a third member of the Combined Production and Resources Board and in October 1943 of the Combined Food Board.

With this one exception, the United States and Britain kept in their own hands full responsibility for managing the combined pool of economic resources. As victory became visible on the horizon and the thoughts of the smaller Allies began to fix themselves upon relief and rehabilitation within their own countries, suggestions came to be made for making the managing institutions more representative. However, the aptness of British-American procedure for achieving its primary purpose—victory—was never seriously questioned. Between them, the two countries possessed the power to make their allocations of economic resources respected; for they were by far the most important buyers of materials, they controlled almost the whole supply of finished goods, and they controlled the world's shipping. Because they used their power responsibly for the purpose of winning the war in the shortest possible time, its basis was never seriously challenged. Action which would have been resented in time of peace was accepted and welcomed because it was necessary to win the war. Responsible and effective leadership won for itself the necessary backing of consent.

(iii)

Strategy

The primary purpose of the Anglo-American partnership was to destroy the enemy's fighting capacity and so win the war. The foundation of combined planning in all spheres was, therefore, the higher strategic decisions of the British and American leaders. It is beyond the scope of this book to probe deeply into these decisions but they must be outlined in order to provide an intelligible background to the war economy.

The first war plan of the fighting partnership was framed at the Washington conference in December 1941.¹ In this document, the British and American Chiefs of Staff reaffirmed the basic principle of grand strategy that had long since been agreed between them.² Despite the entry of Japan into the war, Germany must still be treated as the prime enemy; the defeat of Germany was the key to total victory. Consequently, it should be a cardinal principle of British-American strategy not to divert from operations against Germany any more force than the minimum necessary for safeguarding vital interests in other theatres of war.

The essential features of strategy in the struggle against Germany were envisaged as follows. First was the realisation of the victory programme of munitions and the maintenance of essential communications. Secondly, the ring round Germany must be tightened; it was agreed that a valuable step in this direction would be to seize the North African coast. Thirdly, every effort was to be made to wear down German resistance by British and American air bombardment, by helping Russia, by blockade and by encouraging the spirit of revolt in enemy-occupied countries. Lastly, the conference looked to the continuous development of offensive action leading up to a military assault on the Continent; a land offensive in Europe seemed unlikely in 1942, but it was possible that an invasion might be undertaken in 1943. As for the Far East, the conference agreed that minimum forces must be used to maintain key points which would check Japan's advance and would serve as bases for offensive action later on: India, Australia and New Zealand must be made secure at all costs, and China must be assured of aid. Other points to be held included Hawaii, the East Indian barrier, the Philippines, Rangoon and the road to China.

Although the Washington conference agreed that only minimum forces should be diverted to the Far East, the situation there was so

¹ Its code name was 'Arcadia'.

² See above, p. 380.

serious and urgent that much of the conference's time was spent in planning how to meet it. Some time was also spent on plans for an invasion of North Africa; but, in general, ways and means of striking at the 'prime enemy' were left to be discussed by the Combined Chiefs of Staff organisation after the conference had disbanded. In the spring of 1942, when the outlook for the Allies seemed very dark, General Marshall came over from the United States and placed before the British an energetic plan for striking direct at Germany across the Channel.¹ His suggestion was that every effort should be made for a full-dress invasion of Europe as soon as possible, that is, about the spring of 1943. This should be preceded by continuous raiding in the remainder of 1942. In addition, if the Russian plight became desperate or if German strength in Western Europe was critically weakened, an emergency cross-Channel operation in the autumn of 1942 would be justified.

The Prime Minister warmly welcomed General Marshall's plan as 'a momentous proposal' which accorded with 'the classic principle of war—namely concentration against the main enemy'. There was a reservation to this welcome. The United States proposed to concentrate everything on the preparations for the 1943 attack on Western Europe; the British on the other hand insisted that nothing should further endanger the grave position in the Pacific, the Middle East and the Indian Ocean where, indeed, there was a real danger that Germany and Japan might join hands. Nevertheless, the outcome of the discussions was a general approval for a large-scale descent on Western Europe in the spring of 1943.² Nothing definite was decided about an emergency cross-Channel operation in 1942.³ The Allies might be compelled to undertake it or an exceptionally favourable opportunity might occur. In any case, they should prepare for it.

In the weeks following these talks, the British Chiefs of Staff became increasingly convinced that an attack across the Channel in 1942 would be most unwise. They saw little if any chance that the attack would be successful. There was a serious shortage of landing craft. Until mid-September, when the weather would become too bad, the number of American divisions in Britain would be less than four. Air losses might well be heavier than the Allies could yet support. The great bomber offensive to weaken the German war-making power had barely begun. When Mr. Molotov visited England in May to urge the establishment of a second front in western Europe in 1942, the British Government assured him that it would not hesitate to execute a cross-Channel assault that year provided it seemed 'sound

¹ An excellent published account of the discussions of the summer of 1942 is the article 'A Year Late?', by a Military Correspondent in *The Economist* (28th September 1946).

² This operation was known as 'Round-up'.

³ This operation was known as 'Sledgehammer'.

and sensible'. But 'wars', as the Prime Minister insisted, 'are not won by unsuccessful operations'. The War Cabinet refused to launch the attack unless there seemed at the time a good chance not merely of establishing a bridgehead but of maintaining it in preparation for the decisive attack of 1943. By July 1942 they felt sure that an attack on Europe that year was impracticable.

In Washington, on the other hand, the leaders of the United States Services increasingly favoured this 1942 operation and were increasingly confident that it would be possible. To reconcile these differences between the two countries, the Prime Minister and his advisers again visited Washington in June 1942¹ and in July the United States Chiefs of Staff visited Britain. From these conferences came the vital decisions about the next moves in the war in Europe and the Mediterranean.

The background of these summer discussions was very sombre. The Germans had swept British forces back in Egypt, they were driving deeply into Russia and their U-boats were reaping rich ocean harvests. The Japanese were threatening Australia. In retrospect, with the immense preparations for D-Day in mind, it is difficult to believe that a continental invasion was seriously contemplated in 1942. The bomber offensive was as yet a very minor affair, and the United States' war production was barely getting into its stride. The technique of a great sea-borne invasion was unknown and untried. Nor were battle-trained troops available.

While the British felt certain that the chances even of a small continental invasion in 1942 were very slender, they were equally convinced that some offensive must be launched against Germany in 1942. If Anglo-American resources were concentrated in preparing for a full-scale invasion of northern Europe in 1943, nearly a year would pass before American soldiers engaged Germany and before the British Army in the United Kingdom went into action. While Russia was in such desperate straits, such inaction seemed unthinkable. The British Government considered that a minor expedition to France would be of no military value to Russia. They believed that the only way of effectively coming to grips with the Germans in 1942 was to attack North Africa—an idea that had always appealed both to President Roosevelt and Mr. Churchill. The American Chiefs of Staff on the other hand were still hoping late in July that a bridgehead could be seized in Europe in 1942. They feared that entanglement in North Africa would indefinitely postpone the great attack in western Europe. Finally, however, at the end of the London discussions, the Combined Chiefs of Staff agreed to drop any idea of attacking north-west Europe in 1942 and to concentrate on an invasion of French North Africa at the earliest possible date before

¹ The 'Argonaut' conference.

December 1942. They faced the fact that this operation would probably make it impossible to fulfil their earlier decision to launch a full-scale invasion of north-west Europe in 1943. The reasons for their decision were so cogent that Marshal Stalin acquiesced in them when Mr. Churchill explained them to him in Moscow in August 1942.¹

From July onwards, the chief preoccupation of the British and United States military leaders was the planning of the assault in French North-West Africa. Side by side with all these discussions and plans in 1942 for the next move against Germany there were other urgent strategical problems to be dealt with. It was of the highest importance to stem the Germans' advance into Egypt and thrust them back. Equally vital was the need to give the maximum help to Russia; various proposals were considered, including air help for the defence of the Caucasus and an invasion of northern Norway. Moreover, the war against Japan was a constant preoccupation. An assault on Madagascar was planned and executed. The position in the Pacific² remained critical, while in the last half of 1942 much thought was given to the possibility of launching an offensive in Burma and giving help to an almost entirely isolated China.

Apart from these pressing short-term questions, it was also necessary to keep future grand strategy under review. The conferences in Washington and London in the summer of 1942 had not thoroughly harmonised British and American views on strategy. The decision to attack French North Africa instead of western Europe and to accept for the time being a 'defensive encircling action' for the continental European theatre had led some American Service experts to think that the strategy agreed at Washington in December 1941 had been fundamentally altered. Believing that it was no longer intended to concentrate every effort on the defeat of Germany, they were beginning to divert resources to the Pacific. This worried the British, who considered that the principles of grand strategy agreed at Washington in December 1941 still held good and that the decisions taken in the summer had merely accepted a more prolonged prelude to the final assault on Germany.

All these threads of strategy, short term and long term, were brought together at the conference between the President and Prime Minister and their advisers at Casablanca in January 1943.³ The background was now brighter—the North African landing had been successful, the Battle of Alamein had been won, the Japanese had

¹ Marshal Stalin however did not, it seems, regard the North African operation as a 'true second front'.

² In April 1942, the Pacific sphere was put under American operational control and the Indian sphere under British control.

³ 'Symbol' conference.

been stemmed in the Pacific and the Germans in Russia. Anglo-American differences were vigorously discussed and a general strategic programme for 1943 was settled. The Combined Chiefs of Staff agreed that the defeat of the U-boats must remain a first charge on the United Nations' resources and that the Soviet forces must be sustained by the greatest volume of supplies that could be carried to Russia without prohibitive cost in shipping. Their programme stressed the importance of defeating Germany first, if possible in 1943. For this purpose there would be two main centres of action. In the Mediterranean, Sicily was to be occupied in order to make the Mediterranean more secure, divert German pressure from Russia, intensify the pressure on Italy and possibly enlist Turkey as an ally. From the United Kingdom, there was to be the heaviest possible bomber offensive against the German war effort and such limited offensive operations as the supply of amphibious forces allowed. Meanwhile, subject to the demands of operations in the Mediterranean and the Far East, the strongest possible force was to be assembled in constant readiness to re-enter north-western Europe as soon as German resistance was sufficiently weakened. Operations in the Pacific and Far East were to be continued with the forces already allocated to them in order to maintain pressure on Japan and attain a position of readiness for a full scale offensive there as soon as Germany was defeated; at the same time it was agreed that these operations should be kept within such limits as would not, in the opinion of the Combined Chiefs of Staff, jeopardise the capacity of the United Nations to take advantage of any favourable opportunity for the decisive defeat of Germany in 1943. Subject to this reservation plans were to be made for the recapture of Burma, beginning in 1943, and for operations against the Marshall and Caroline Islands if these did not prejudice the offensive in Burma.

The attack on Sicily was timed for July 1943. In May, when hostilities in North Africa were almost ended, another Anglo-American conference met at Washington¹ to review the chain of operations to be undertaken in the rest of 1943 and in 1944. The war against the U-boats was to be prosecuted as fiercely as ever. A plan was approved to accomplish 'by a combined United States-British air offensive, the progressive destruction and dislocation of the German military, industrial and economic system and the undermining of the morale of the German people to a point where their capacity for armed resistance [was] fatally weakened'. The plan was to be accomplished between the conference and 1st April 1944. 1st May 1944 was set as the target date for mounting a cross-Channel operation.

¹ 'Trident' Conference.

Meanwhile, it would have seemed intolerable for the Anglo-American Forces to be inactive during the rest of 1943 after Sicily was conquered. It was agreed that the Commander-in-Chief, North Africa, should be instructed to mount such operations in exploitation of the attack on Sicily as might be best calculated to eliminate Italy from the war. The conference also took difficult decisions about the Far East. The Combined Planners were directed to prepare an appreciation leading up to a plan for the defeat of Japan. Meanwhile, the Combined Chiefs of Staff agreed to concentrate in the Burma-China theatre on building up the air route to China and developing air facilities in Assam. They approved vigorous and offensive land and air operations at the end of 1943 from Assam into Burma and minor amphibious attacks to go in step with a Chinese advance. An offensive was also planned for the Pacific itself.

As the war moved swiftly towards its climax, frequent conferences between the President and the Prime Minister and their Chiefs of Staff were necessary. In August, three months after the Washington meeting, another conference was held at Quebec.¹ By that time, it had become easier to visualise the fulfilment of the first item in the grand strategic concept of the war—the unconditional surrender of the Axis in Europe. The progressive destruction of the German military and economic system by bombing as the prerequisite to invasion in 1944 must still have the highest strategic priority. The 1944 invasion—operation ‘Overlord’—would be the primary United States-British effort against the Axis in Europe; its date was reaffirmed as 1st May. Reserves would be distributed between the Mediterranean and ‘Overlord’ with the main object of ensuring the success of ‘Overlord’; this meant that opportunities of penetrating deeply ‘the soft underbelly’ of German power would be set aside in favour of the assault in the north-west. These operations in Europe were considered in some detail. Simultaneously, it was decided to maintain and extend unremitting pressure against Japan. The Combined Chiefs of Staff now looked further ahead to the time when the Axis had been defeated in Europe and it would be possible to direct the full resources of the United States and Britain to bring about the unconditional surrender of Japan at the earliest possible moment, if possible twelve months after the defeat of Germany. Many specific operations in the Far East were approved for 1943–44,² and planning began for the time when the Allies could throw their full weight against Japan.

The events that followed the Quebec conference of August 1943 brought into prominence a significant difference in outlook between the British and the Americans about the direction of war. The

¹ ‘Quadrant’ Conference.

² To facilitate vigorous and effective operations in S.E. Asia, the command in India was separated from the command in S.E. Asia.

American military experts considered that once a strategical programme had been settled it must be carried out without variation. The British experts, on the other hand, regarded programmes rather as a general aim to be constantly reviewed in the light of war developments. Thus, when Mussolini fled, Italy collapsed and her fleet capitulated in the autumn of 1943, the British saw a chance to win cheap prizes in the whole Mediterranean which would press Germany still harder and increase 'Overlord's' chance of success by diverting enemy troops to southern Europe. They chafed therefore at the necessity for sending away from the Mediterranean trained troops, and above all landing craft, in order to implement the Quebec decision that 'Overlord' should be mounted on 1st May. This firm adherence to the policy of Quebec had produced a series of disappointments in the Mediterranean and if it continued the front there would necessarily remain quiescent instead of continuously engaging German forces in the vital months before 'Overlord'. If 'Overlord' were delayed for a month or two, landing craft could be kept long enough in the Mediterranean to clear the position there.

The choice between retaining 'Overlord' in all its integrity and keeping the Mediterranean ablaze was the chief point of discussion at the Cairo and Teheran conferences in November and December 1943.¹ At Teheran, Marshal Stalin joined the President and the Prime Minister for the first time. Finally, it was agreed that 'Overlord', in conjunction with an assault on southern France, were the supreme operations for 1944. They were to be carried out in May 1944 and nothing was to be undertaken in any other part of the world which hazarded the success of these two operations. Every effort was to be made to provide the essential landing craft. Soviet forces planned to launch an offensive at about the same time. Before the meeting at Teheran, General Chiang Kai-Shek had been at the conference in Cairo discussing plans for offensive and amphibious operations in Burma; but the shortage of landing craft had made the amphibious operation seem extremely doubtful to the British. Then, at Teheran, the significance of the operation waned with Marshal Stalin's announcement that Russia would go to war with Japan when Germany was defeated. These meetings at the end of 1943 represented what the Prime Minister called 'the greatest concentration of worldly power that had ever been seen in the history of mankind'. The stage was set for D-Day and then for the swift defeat of Japan.

¹ 'Sextant' Conference at Cairo and 'Eureka' Conference at Teheran.

CHAPTER XIV

OUTLINE OF SHIPPING

(i)

The Effects of Pearl Harbour

THE shipping position had been foremost among the anxieties that had beset the British Government in the months between Dunkirk and Pearl Harbour. By the autumn of 1941, however, the outlook had become much more hopeful. The turn-round of ships in the ports had markedly improved, while in August and again in October, November and December gains of dry cargo shipping exceeded losses. Furthermore, there were high hopes of the aid Britain would receive when the big United States' shipbuilding programme for 1942 was well under way. In October 1941, the Import Executive considered it reasonable to aim at a 33 million tons import programme for 1942.

By December, the demands of the Middle East and the Russian convoys were already making such a programme unlikely. Pearl Harbour made it quite impossible. In shipping, as in everything else, the Japanese attack shifted the war to a completely new plane. Almost all the major countries were now involved in the war and every continent was engulfed in, or directly threatened by, hostilities. The joint Anglo-American responsibility for strategic planning and for maintaining the war effort of Allies in all corners of the earth, depended upon the availability of ships to carry the soldiers, war weapons and essential civilian supplies.

The history of shipping after Pearl Harbour really becomes a central strand in the history of the United Nations' war effort. From this point of view, its main significance is the combined use of shipping for military purposes and for the supply of all Allied needs. The materials for this history, should it be written, are to be found both in Washington and London. The present shipping chapter, however, has a narrower purpose and is based predominantly upon documents in London: not shipping in the service of the combined war effort but shipping in support of the British war economy—particularly British imports from overseas—is our theme. Even in this restricted area, what we write will be in a special degree provisional. A definitive British Shipping History for the period from Pearl Harbour to

Normandy will require further exacting research. We regard our present chapter as a preliminary sketch.¹

Although we are writing primarily of British shipping problems, we must try to set them in their United Nations context. American participation in the war promised great things. As part of their arrangements for the co-ordination of the Allied war effort, the President and the Prime Minister agreed that the shipping resources of the two countries would be 'deemed to be pooled'. The Ministry of War Transport would still direct the shipping under British control and the appropriate United States authority would direct the shipping under American control; but two Shipping Adjustment Boards—one in Washington and one in London²—would combine the two national managements in 'one harmonious policy'.

Under this arrangement, there were in effect to be two pools of shipping and two centres of control. The bulk of British needs would be met by ships under British control, of American needs by ships under American control. The function of the two Boards would be to secure such interchange and combined use as would result in economy and the allocation of shipping to different services of either country in proportion to their relative importance.³ We shall discuss later how far these hopes of pooling Allied shipping resources were realised.

However high the hopes, they were swiftly overshadowed by an alarming increase in shipping losses. In March 1942 the Prime Minister wrote to President Roosevelt:

When I reflect how I have longed and prayed for the entry of the United States into the war, I find it difficult to realise how gravely our British affairs have deteriorated by what has happened since the 7th December.

Nowhere was the deterioration more alarming than in the United Kingdom's immediate shipping prospects. The declaration of war against the United States immensely simplified the problems of the German U-boat command. For one thing, the Allied escort forces were severely strained by the demands of the Pacific war and the Russian convoys. While eight or twelve escorting vessels had accompanied convoys in the latter half of 1941, the number in 1942 had to be reduced to four or six. Moreover, the ban on U-boat operations on the American side of the Atlantic was lifted. Although very few U-boats were

¹ The chapter is confined almost entirely to non-tanker tonnage. The history of tankers is impressive, especially in its Anglo-American aspects; it will be told in the Oil volume of this series.

² *Agreements between the Prime Minister and the President of the United States of America*. January 1942. Cmd. 6332.

³ Assent to the allocation of American ships to a British service would be given on the Washington Board by the American member. Assent to the allocation of British ships to non-British service would be given on the London Board by the British member. Washington became inevitably the main centre of negotiation for such interchange because the United States had the spare ships.

equipped for operations in American waters (the number in December 1941 was only six) their successes were immediate and outstanding.

The campaign opened with the sinking of two Allied ships off the eastern seaboard of the United States on 12th January 1942, and before the month was out another thirty-three ships were sunk. The U-boat commanders were experienced; the American defences were inadequate and unready. There were no coastal convoys and no black-out of lights along the coast. Between the beginning of December 1941 and the end of June 1942, over $4\frac{1}{2}$ million gross tons of ocean-going shipping available to the United Nations were lost¹—over three million gross tons of non-tankers and nearly $1\frac{1}{2}$ million gross tons of tankers. For a time, tankers were being sunk at the rate of one 15,000 ton ship every day. Over seventy per cent. of the total losses were caused by submarines.² Of the tonnage lost by enemy action, fifty-six per cent. was sunk in the western Atlantic. From the middle of 1942 the dangers in that area declined. Helped by the loan by the British of twenty-four large anti-submarine trawlers, the Americans had strengthened their defences. By opening out the cycle of their Atlantic convoys—at a cost of some 30,000 tons of imports a month—and by other squeezes, the British also managed to provide the escort reinforcements that made possible the institution of United States coastal convoys. The first convoys on the American seaboard and between Trinidad and Aruba set off in the middle of May, but it was July before convoys began across the Caribbean.

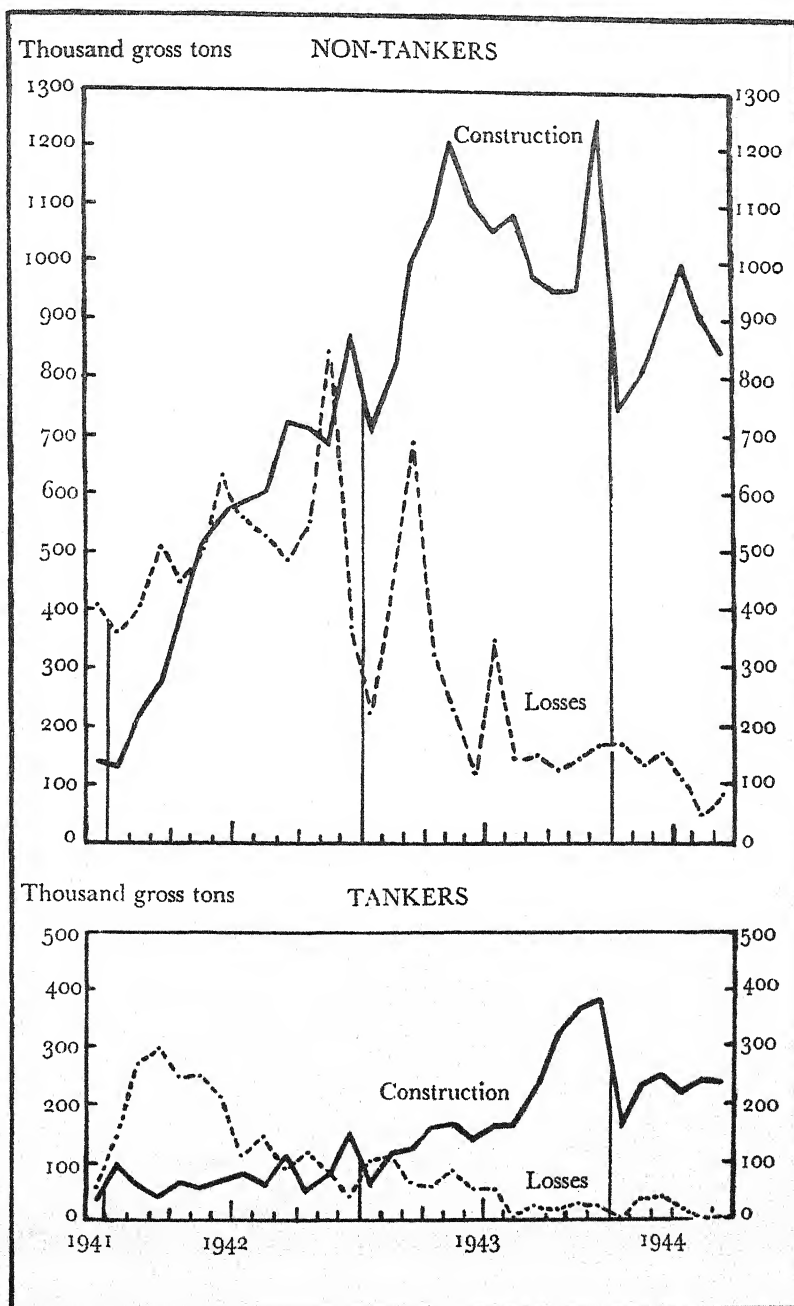
The U-boats, however, did not slink home; they sought other hunting grounds. As sinkings in the western Atlantic fell, losses on the ocean trade routes—particularly in the North-West Approaches, in West African waters and in the South Atlantic—rose. Tanker losses fell sharply but in the last six months of 1942 the average monthly losses of ocean-going dry cargo ships available to the United Nations were over half a million gross tons—even higher, that is, than in the first six months. In January and February of 1943, dry cargo losses were lighter, but heavy U-boat attacks in March brought the average monthly sinkings for the first quarter of the year to about 400,000 gross tons. Thereafter, losses never reached these heights again.

The position for the United Nations as a whole was not quite as black as the losses paint it. For after the middle of 1942, the immense shipbuilding power of the United States began to assert itself. The accompanying charts show that from about the end of July 1942 there was an almost uninterrupted excess of new construction of ocean dry cargo shipping over losses, while before the end of the year tanker replacements were also greater than losses.

¹ Losses from enemy action and marine causes; this refers to ships of 1,600 gross tons and over.

² This figure refers to merchant ships of all tonnages and to losses in January–June 1942.

UNITED NATIONS LOSSES
AND NEW CONSTRUCTION OF MERCHANT SHIPS



The United Kingdom, however, did not share in this gradual increase of tonnage from August 1942. British merchant fleets were concentrated in all the most dangerous waters and they bore losses which were high out of all proportion. At the end of June 1942, British-controlled dry cargo ocean shipping comprised about sixty-two per cent. of the total world tonnage outside enemy control; in the last half of 1942 more than seventy-two per cent. of the shipping lost was British controlled. The monthly rate of British losses was not, indeed, as high as it had been in the first six months of 1941, but it was still a very high, and this time a long-continuing, rate. The United Kingdom could not possibly replace such grievously heavy losses out of its own resources. And so the British merchant fleet¹ steadily shrank. The non-tanker ocean fleet fell from 16,200,000 gross tons at the end of November 1941 to just below 14 million gross tons at the end of April 1943; only then did it begin to show a slow increase. The tanker fleet² did not start to grow again until July 1943.

So much for the supply of shipping after Pearl Harbour. What was happening to demands upon it? In 1941, the merchant shipping of what were, later, the United Nations, had been employed upon four main services—imports to the United Kingdom, imports to other parts of the world (the British Commonwealth, the Far East, etc.³), support of the Middle East campaigns, the movements of troops and military stores to other areas. Arrangements were also made in the latter part of the year to send substantial supplies to Russia, though the quantities actually delivered up to the end of 1941 were small. In 1942 most of these demands continued. While a few claims were almost eliminated—for example, Far Eastern imports—others, such as military demands in the Middle East, increased. And new demands crowded in. Supplies to Russia became important. War in the Far East meant that troops and supplies had to be rushed across immense distances of ocean to reinforce India and Australia and the Pacific islands. Moreover, America's belligerency meant that the time had come to plan the series of offensive operations which were to combine with the war in Russia in defeating Germany. At the centre of these schemes was the 'Bolero' movement of great numbers of American soldiers, airmen and equipment to the British Isles. Meanwhile, by the late summer of 1942 plans were also being made for the landings in North Africa. The demands seemed almost limitless.

¹ This includes vessels on time charter to the United Kingdom.

² This applies to tankers on the British register, Allied and neutral tankers on time charter to the United Kingdom and other Allied tankers under the control of the European Allied Governments.

³ Imports to the United States are not included as they were not an additional demand on shipping; ships would have had to carry ballast if they had not carried these imports.

(ii)

The Months of Crisis

Against this background of intense strain we must consider the shipping problems of the British Government. First was the need to conquer the U-boat and save losses. For some time the U-boats went from strength to strength. Production of them rose steadily and the number operating in the Atlantic progressively increased in spite of diversions to the Mediterranean and to the Arctic route to Russia. The system of controlling the U-boats from shore headquarters was perfected. The use of supply submarines extended the range of action of the raiders. Great strides were made in the development of torpedoes. The fortified 'pens' or shelters immunised U-boats in the Biscay ports from bombing attacks.

As late as March 1943, the U-boats made some of their most successful attacks of the war. But from then onwards, in spite of important technical development, their success waned. By May the Allied air strength in the Atlantic was very powerful. Moreover, U-boats could now be located at a great distance by Allied radar without their being warned. U-boat losses, which had previously been some thirteen per cent. of all the boats at sea, rose rapidly up to fifty per cent. The U-boats never regained their ascendancy.

But the losses they inflicted on British shipping during the period of their ascendancy were far too heavy for the British shipbuilding industry to make good.¹ In the fifteen months of shipping crisis from January 1942 to the end of March 1943, not much more than a quarter of the losses of British flag and British controlled ocean non-tankers were replaced from the British shipbuilding yards. Faced with this shrinkage of tonnage and the increasing demands, the Government had three main tasks. First it had to strive for economies and improvements in management that would increase the carrying capacity of British and Allied tonnage. Secondly, it had to tackle its perpetual problem of allocating the limited tonnage available and of balancing needs one against the other. Thirdly, since the British merchant fleet could not meet, unaided, Britain's minimum requirements and commitments, the Government had to seek assistance from the United States.

The British and the combined shipping authorities were continuously seeking economies in shipping space and improvements in management. One of the most promising opportunities for economy was in the transport overseas of Service men and their equipment.

¹ Merchant shipbuilding will be examined in one of the volumes on War Production.

In the early months of 1942, the worst shortage of all was in troopships. By various steps, including the reduction to a minimum of facilities for exercise and other amenities, the capacity of existing troopships was increased by nearly one third. The journey round the Cape, however, was so long that it was not possible to reduce British standards of accommodation to the level of the troopships carrying American soldiers across the Atlantic.

Still bigger economies were possible in the Services' use of cargo shipping. Much modern war equipment is, in its assembled form, very wasteful of shipping space; this is especially true of wheeled vehicles. Shipping space could be saved by dismantling the vehicles and packing them in crates. Throughout 1942, experiments were made to find the best type of pack and to extend it to as many vehicles as possible. There were a good many difficulties. For example, the greater the number of packages per vehicle the easier it was to stow them, but the risk of losing important components was higher. And the more completely vehicles were broken down, the more elaborate were the assembly plants needed at the destinations. Special vehicles such as those with electrical apparatus or complicated body-work could not be dismantled very thoroughly. Sometimes, too, there were difficulties at the receiving end; inland transport was often gravely deficient and in some theatres of war additional vehicles were needed so badly that time could not be spared for their assembly.

Nevertheless, boxing made great progress during 1942. The percentage of all War Office vehicles shipped in crates rose from almost nothing at the beginning of the year to about sixty per cent. in October; for trucks, the percentage rose to over ninety per cent. Much shipping space was saved. For example, a certain type of 3-ton truck absorbed 1,000 cubic feet if it were shipped on wheels, 726 cubic feet if it were boxed in one of the early kinds of pack and only 503 cubic feet in the improved pack used at the end of 1942. In July, the Prime Minister reminded the War Cabinet that ships set free by improved packing would be able to bring the country about three cargoes on the North Atlantic route instead of one cargo on their way back from the East. He asserted that the vehicles shipped in crates during May had increased potential imports by about 80,000 tons, or as much as the monthly saving achieved by raising the milling ratio, the rationing of clothes and soap and the abolition of the basic petrol ration all put together. These calculations were shaky but they do give some idea of the magnitudes involved. By the end of 1942 there were also substantial savings through improved packing of other equipment such as guns and projectors.

In many other directions there was scope for economy in the transport of the Services and their equipment. The supply of equipment could be organised more efficiently. While immense demands on

shipping were being made to carry motor transport overseas, it seemed that large numbers of vehicles abroad were immobilised for lack of spare parts. Following pressure from the Combined Shipping Adjustment Board and the Combined Chiefs of Staff, the Munitions Assignment Board set to work to improve the procurement, distribution and shipment of these spare parts. Moreover, they did their best to reduce the types and numbers of vehicles used by the United Nations in all theatres of war. The source of supply of equipment was also important. It was wasteful of shipping if the United Kingdom imported supplies from North America and exported identical articles to the East. Arrangements were therefore made for units sailing from the United Kingdom to take their specialised vehicles with them but to receive general vehicles from pools in the East supplied mainly from North America. There was also pressure on the Allied Services to draw as many supplies as possible—especially food—from local production overseas. The United Kingdom, for example, undertook to provide the American troops in the British Isles with a great deal of equipment.

It was equally important that civilian import programmes should draw supplies from the nearest source. There were strict limits to the possibilities. For example, the United Kingdom had to take imports from areas to which ships carried military stores. Economies that looked valuable in terms of distance often did not fit conveniently into the existing pattern of ship-routeing. The Combined Boards which allocated food and materials were very helpful, but attempts at rearrangement of supplies increasingly came up against supply difficulties. In 1942 these were not as yet frequent; but even then the case of the United Kingdom's meat supplies was notorious. In order to release fast refrigerator ships for other services it was agreed that the United Kingdom should draw much less meat from Australasia and much more from the United States; appropriate arrangements were made with the American Department of Agriculture. But in the early months of 1943 the plan broke down, not because the shipping was not there but because the meat was not available.¹ Meat was a particularly unfortunate example of the attempts to concentrate on the nearest sources of supply; most attempts were much more successful.

A long further list could be given of devices to increase shipping capacity. Some foods—in particular, eggs—were dehydrated. Beef was shipped without its bones. Anglo-American co-operation ensured that equipment for United States troops in Britain and United

¹ The Ministry of War Transport was berthing tonnage against what it assumed to be the programme; since the programme was repeatedly reduced this always resulted in over-tonnaging. Between the beginning of November 1942 and the end of February 1943 over 5½ million cubic feet of valuable refrigerator space in British ships alone had to be diverted or filled with non-refrigerated cargo.

Kingdom imports were shipped together in order to get a good proportion between cargo heavy in relation to its bulk and cargo bulky in relation to its weight. There were, too, ambitious schemes such as the development of an overland route from West Africa to the Middle East and East Africa.¹

Other problems of increasing the carrying capacity of shipping were old ones familiar from the months after France fell. The rate of turn-round in the ports still caused anxiety even in British ports where there had already been such great improvements. In ports abroad, improved turn-round was a matter of great urgency. For example, in the spring of 1942 Freetown had an average monthly traffic of 30,000 tons of imports; its peace-time trade had been 2,000 to 3,000 tons a month. Ports in North America, South Africa, the Middle East, the Persian Gulf, India, Ceylon, all had troubles, varying in severity, which the Anglo-American shipping authorities had to try to overcome. Again: there remained a large mass of shipping immobilised under repair, most of it in ports abroad. Convoy arrangements and the balance of risk in allowing more ships to go unescorted were, too, as perplexing as ever.²

There were, then, many ways in which improved results could be obtained from existing shipping resources. In this chapter there has been space for only a few of these ways, and even they have been scarcely more than listed. The full history of shipping problems after Pearl Harbour, when it comes to be written, will no doubt discuss all these measures in some detail and assess their cumulative importance which was, undoubtedly, very great. But however large the economies so achieved, there still remained other fundamental questions of British shipping policy. How was British-controlled shipping to be employed? How should demands be pruned to fit the supply? What help would the United Kingdom obtain from the United States?

These questions are for the most part indivisible and must be considered together. However, the emphasis on each of them shifted from time to time. In the first half of 1942, there was little emphasis on increased American aid; the British realised that they were fortunate in being able to keep the help they were already receiving. Admittedly it was some months before the American War Shipping Administration secured proper control over the cargoes American ships carried and eliminated luxury cargoes. But the salient fact was that the United States merchant fleet was still small. American current building did not offset American current losses until May 1942; moreover, many ships were immobilised while they were being armed

¹ In 1942 the capacity of the route was very small. Then the successes in North Africa made the development of the route less important.

² See above, Chapter X, Section (ii).

and degaussed against magnetic mines. Meanwhile, the demands of the United States Army and Navy had increased enormously. Early in 1942, Sir Arthur Salter sent a warning from Washington that he could hardly overstate the present and impending difficulties of the tonnage position on that side of the Atlantic. For the present, therefore, the United Kingdom had to do the best it could without any American additions to its resources.

In retrospect, the shipping position in 1941 must have seemed nostalgically easy. Even in the worst quarter of that year, non-tanker imports had been almost seven million tons. But in January 1942, the Ministry of War Transport doubted whether imports for the current quarter would exceed $5\frac{3}{4}$ million tons.¹ This fall was due partly to shipping losses and partly to the claims of the Services, which included supplies to Russia. Between the end of November 1941 and the end of March 1942 the tonnage allocated to the Services rose by nearly a million deadweight tons.² Although much of the cargo shipping diverted to military service in Middle Eastern and Eastern waters brought imports on the homeward voyage, its employment so far away meant that fewer round voyages could be accomplished in a year. It was impossible to concentrate shipping on the near sources of supply; the proportion of United Kingdom imports drawn from North America dropped from fifty-two per cent. in the last quarter of 1941 to forty-one per cent. in the first quarter of 1942.

In these circumstances, it was no longer safe to regard the United Kingdom import programme as the residuary legatee of shipping space after the essential demands of the Services and the cross trades had been met. The Government had to know the point below which the import programme must not be allowed to fall even in an extreme military emergency. Early in 1942, the Lord President's Committee concluded that $22\frac{1}{2}$ million tons was the bedrock minimum for imports in 1942; this figure would, it was said, bring stocks down to the danger level so that imports in 1943 would have to keep pace with consumption. In the event, further urgent additional military demands for shipping did not arise until the North African landings were being planned; it was the shortage of troopships rather than the shortage of cargo shipping that limited military plans. In April 1942, the Minister of War Transport, after surveying the troop movements in view and the likely rate of loss, considered that, with existing American assistance and provided no more adverse factors intervened, 1942 imports would be about 25 million tons.

¹ A close guess; they were actually 5.82 million tons.

² The figures are taken from the Central Statistical Office war-time digest of shipping statistics. In them, the figure for the shipping allocated to the fighting services at the end of each month does not include ships so allocated on their outward journey but which were at the time of calculation homeward bound and carrying imports to the United Kingdom.

This figure was well above the bare minimum and imports during the first half of 1942 were actually at an annual rate of nearly 24½ million tons. But, even so, consumption could still be maintained only by drawing upon stocks. It was therefore urgent to prune demands and make every possible economy in the use of shipping space both by the Services and by civilian consumption.¹

One of the principal objects of shipping policy was to avoid cutting essential military demands. The Services could not however be permitted extravagant standards of equipment, reserves and overseas maintenance. The Prime Minister in particular felt that the heavy military demands on cargo shipping arose partly from the inflated requirements of British divisions for transport and equipment. He felt that the fighting in Malaya had underlined the disadvantages of cumbersome equipment and insisted that the Army should learn to travel light. The War Office was continuously instructed to strive for economies in transport and to comb out its rearward formations.²

In the field of civilian consumption, the most fruitful source of shipping economies was in food imports. Savings were possible either by belt-tightening or by various forms of substitution. There was not much scope for belt-tightening. After Pearl Harbour the increases in rations granted the previous October were withdrawn; the Minister of Food then insisted that any further reduction maintained over a long time would impair the nation's health. Substitution economies were more promising; one in particular—a higher milling ratio—was long overdue.

In August 1941 stocks of wheat and flour had stood so high that in the next two months considerable imports of feeding-stuffs had been allowed at the expense of wheat. When, therefore, prospective wheat shipments dropped alarmingly after Pearl Harbour, wheat stocks threatened to fall below the accepted danger level at the end of February 1942 and even lower in March and April. The Ministry of Food claimed that either 200,000 extra tons of wheat must be imported between January and April, or else bread must be drastically rationed, or else the wheat extraction rate must be raised to eighty-five per cent. as soon as possible.³ It was hardly conceivable that large allocations of shipping would be made simply to retain white bread. Nevertheless, the Ministry of Food still did not want to begin compelling people to eat unaccustomed food and the agricultural departments painted a gloomy picture of the effects of a loss of

¹ The term 'civilian consumption' is applied very loosely. It includes, for example, food supplied not only to civilians but to the Forces.

² See also Chapter XV.

³ The claim was partly based on an under-estimate of the supplies yet to come forward from the home crop. See *Food*, Vol. I, Chapter XX.

wheat offal upon home-produced meat, milk and eggs. But the increased milling ratio was by far the greatest single alleviation of the shipping position open to the United Kingdom; even if imports of maize or of eggs and bacon were increased to compensate in part for the loss of feeding-stuffs, the net economy in imported grain would be not less than 400,000 tons a year. The need for shipping economies was becoming extreme.¹ At length, therefore, the increased milling ratio was accepted; it came into force at the end of March 1942.

This increase in the milling ratio was the major economy made during the first half of 1942. The other important step of this period was one that did not affect the immediate shipping outlook. The ploughing-up campaign was to be intensified for the 1942-43 harvest; between 300,000 and 400,000 extra acres were to be sown with wheat.

As 1942 drew on, something more was needed than a succession of specific economies. The Government felt in need of a comprehensive review of shipping prospects and policies. The country had not as yet been forced to cut its military commitments or its war production to save itself from hunger; but it was living on its stocks. Clearly, it could not do this indefinitely. Moreover, it might, before long, have to cope with a sharper shipping stringency. Up to the present, the Allies had not undertaken any seaborne offensive.

In May 1942, a new Shipping Committee of the War Cabinet was established. The Import Executive had by then outworn its usefulness. It was a high level committee which took short-term decisions necessitated by inadequate inter-departmental planning. Some of the Import Executive's functions had died when the Ministry of Transport and the Ministry of Shipping were fused, and as better co-operation developed between departments. Moreover, the allocation of importing capacity was no longer the central problem; in 1942, British shipping prospects depended far more upon the allocation of carrying capacity between civil and military uses and upon pooling arrangements with the United States. Neither of these subjects could be settled below the level of the War Cabinet itself. There was, however, need for continuous study of the shipping position and its manifold implications. This task was entrusted to the Shipping Committee, an inter-departmental body of officials meeting regularly under the chairmanship of a junior minister. The usefulness of the new committee was to some extent limited by the fact that none of its members had the necessary knowledge to check the importing departments' figures of minimum stocks and consumption.

The Shipping Committee produced the first of its periodic shipping reviews in June 1942. The central theme of the report was a comparison of probable imports with estimated consumption of them.

¹ The Minister of Health also had medical arguments in favour of a higher extraction rate, but the change was made for shipping, not nutritional, reasons.

After allowing for shipbuilding output, probable losses, increased military requirements, the demands of the cross trades and American assistance at the current rate, the Shipping Committee calculated that total imports of food and raw materials in 1942 and the first half of 1943 would be about 33 million tons. Net consumption of imported food and materials—that is, total consumption less home production and imports from Eire—was estimated at 41.4 million tons for the same eighteen months' period. These figures left a gap of about 8.4 million tons between imports and net consumption.

There seemed five possible ways of closing this gap—economy in other countries' import programmes, economy in the Services' use of shipping, de-stocking, reduced consumption of imports by the United Kingdom, and, finally, greater assistance from the United States. The first possibility proved barren; the civil requirements of the Dominions, the Middle East, India, West Africa—whether or not they had been cut to the bare minimum—could not in practice be subjected to further compression. It also seemed prudent to set aside the second possibility and to regard any economies by the Services as an offset against unforeseen military demands. This left de-stocking, economies in the United Kingdom import programme and American help.

At first it seemed as if de-stocking and economies between them might just close the gap. The Shipping Committee thought that, between January 1942 and June 1943, stocks could be reduced by six million tons before they reached the level estimated for indispensable working stocks. In the same period import requirements might possibly be reduced by nearly $2\frac{1}{2}$ million tons. This figure was the total of various proposals. Miscellaneous economies in the use of materials might save a million tons, while food might be economised in a number of ways: it might be possible to obtain more cereals for human consumption from the 1942 harvest; the milling ratio could be increased to ninety per cent. or even perhaps to ninety-five per cent.; bread might be diluted with rye, barley or oats; and an emergency slaughter of livestock might yield more home-produced meat.

Reductions in stocks and economies in imports together would, it seemed, just about fill the 8.4 million tons gap. This neat arithmetical balance, however, inspired a good deal of uneasiness. Shipping estimates for so long ahead were wrapped in doubt. Admittedly, the home harvest might exceed expectations, the ships bringing American troops and their equipment to Britain might bring in additional imports and there might be further economies in the military use of shipping. But suppose on the other hand, that sinkings were ten per cent. higher than the estimates, and imports in consequence about two million tons lower? Suppose stocks were extensively destroyed or immobilised by air attack? Or what if the military demands did not

behave according to the estimates, which assumed that some of the new demands would be for limited periods only, that some might not materialise at all and that certain existing demands might diminish?

The strongest fear of all was about the stocks position. The United Kingdom dared not deplete its stocks below the danger level unless it was assured beyond doubt of sufficient American assistance thereafter. Otherwise it would be faced with an inescapable choice between dangerous alternatives; either to curtail military operations or war industry or else to let food rations sink below the amount necessary for health and strength. Unless stocks were rebuilt beyond the agreed danger level, the Government would have no elbow room for strategic operations to take advantage of any sudden weakening of the enemy.

Everyone in Government circles was agreed about the high importance of safety in stocks, but opinions diverged about the right method to attain it. At one extreme it was urged that British consumers could still make economies, particularly in their food, and that British producers could make a bigger contribution towards economising imports; labour could be directed into import saving industries and the farmers, at the expense of their fodder crops, could produce in the next year's harvest still more food for direct human consumption. At the other extreme it was urged that the burdens imposed on the civilian population were already at the limit of prudence: imports therefore should be fixed at a level that would ensure a reasonable margin of stocks and dispense with the most drastic cuts in civilian consumption. The Services could then have whatever shipping was left, including any windfall gains or losses.

The War Cabinet accepted neither of these extreme views; it finally concluded that the United Kingdom could not hope to close the gap between probable imports and import requirements by its own unaided efforts. The War Cabinet felt in the first place that it could not allow stocks to be run down by the full six million tons contemplated by the Shipping Committee, for it was highly improbable that imports in the second half of 1943 could be increased sufficiently to replenish them. Four million tons seemed about the maximum safe reduction in stocks. Secondly, the War Cabinet could not approve all the drastic consumption economies listed by the Shipping Committee.

At the cost of much internal friction and disturbance [wrote the Prime Minister] we may by 'tightening the belt' save perhaps a million tons. Whether this should be done as a moral exercise should be carefully weighed. It can, however, have no appreciable effect upon the problem of maintaining our war effort at home and abroad.

Economies totalling under $1\frac{1}{2}$ million tons in the eighteen months' period were approved. But it was decided that the savings to be

expected did not at the moment justify a further increase in the milling ratio or the halving of beer supplies in order to dilute bread with barley. Nor did the Government feel able to mortgage the future by initiating compulsory slaughter of livestock and a reduction in fertiliser imports. Bread rationing was seriously considered; but the War Cabinet felt that such a fundamental change in food policy, fraught with so many administrative and nutritional dangers, would not be worth while unless it saved about half a million tons of wheat imports. The Minister of Food saw no prospect of such a saving and in the absence of evidence to confute him the proposal to ration bread was abandoned in August 1942.

How then did the Government propose to close the remaining gap between probable imports and import requirements? It looked to the rising tide of American shipbuilding. American shipping losses might remain high for some time and the shipping demands of the American Services would be immense. The United States Government should, nevertheless, be asked for a firm assurance that it would reinforce British shipping sufficiently to guarantee imports of 25 million tons in 1942 and 27 million tons in 1943. These import programmes should be regarded as irreducible minima entitled to the first call on the shipping available. The United Kingdom must come to a 'solemn compact, almost a treaty' with the United States to this end.

At this point it is necessary to turn back and see how Anglo-American shipping collaboration had been developing. After the establishment of the Combined Shipping Adjustment Boards in January 1942, there was much fruitful co-operation between the shipping authorities of the two countries. A system of United Nations shipping statistics was gradually developed. There were all the economies in shipping management already listed. There were, too, all kinds of problems over types of ships where the two countries gave mutual help. For example, the United Kingdom helped to relieve the Americans' acute shortage of troopships while the Americans lent to the British ships suitable for tropical seas in exchange for more British shipping in the Atlantic. Another major achievement was the system for meeting the import requirements of all the areas under Allied control. The world was divided geographically. The Ministry of War Transport co-ordinated the import programmes of India, the Red Sea and Persian Gulf, South and East Africa, West Africa and the Anzac area; the United States shipping authorities co-ordinated the import programmes of the western hemisphere. The responsibility for finding the shipping to fulfil these programmes rested with the co-ordinating national authority which, if necessary, could ask for assistance from its opposite number.

All these steps were important. But they were overshadowed by the chief issue in Anglo-American shipping relations. How much net

assistance was to be given from the United States' shipping pool, which rose continuously after May 1942, to the British pool, whose level fell until well into 1943? The original idea had been that there should be two pools of shipping, each under its own management but with the two managements jointly regulating the flow between them. This aim was not fully realised. The Combined Shipping Adjustment Boards did not become an international authority examining all the shipping available to the United Nations and allocating it according to the needs of the Allied war effort. Control over shipping remained a national affair with the United Kingdom making its requests for shipping help to the United States.

It was inevitable that difficulties should beset these negotiations for shipping help. The last chapter emphasised that the United Kingdom and United States Governments had reached very different stages in government control and co-ordination; the difference was particularly marked in the shipping administrations. After Pearl Harbour the Americans had to build up a shipping administration almost from scratch. The existing Maritime Commission was rather similar to Britain's pre-war Mercantile Marine Department. It had no experience of planning and programming supplies to meet a serious deficiency of tonnage; it possessed no proper information or statistical service. When war came, therefore, every United States department affected by the shipping shortage began to construct its own balance sheet of requirements and available tonnage. Moreover, the Service departments requisitioned ships on their own initiative. Early in February 1942 the War Shipping Administration was established; it was responsible to the President and had sole requisitioning powers over ships not already in the unyielding hands of the Army and Navy. Even then the troubles were not over, because the Services were apt to regard their shipping requirements not as requests or applications but as orders. Unfortunately, there was no authority short of the President to decide major priorities and no machinery for presenting to him the issues for decision in a balanced and objective way.

In the United Kingdom, the Ministry of War Transport was secure in its control over merchant shipping long before Pearl Harbour. The Minister had all the necessary authority to execute the decisions of the War Cabinet on broad issues of shipping policy. But although their control over shipping was almost irreproachable, the British, too, had their defects. The Government showed some lack of balance in its preoccupation with the British import programme and, in its efforts to get minimum import figures accepted as a first charge on Allied shipping resources, it paid scant regard to all the other urgent demands for shipping that were piling up in Washington.

It was, then, very difficult to inculcate a real 'pooling' mentality on either side of the Atlantic. This makes even more remarkable the

ultimate success of the shipping collaboration between the two countries. The Combined Shipping Adjustment Boards were only the formal and institutional recognition of an extremely close personal collaboration between the American and British shipping administrators—in particular between Sir Arthur Salter, in his days as head of the British Merchant Shipping Mission, and Mr. Lewis Douglas, of the War Shipping Administration. The constant contact between those engaged in day-to-day administration built up friendships that stood the test of sharp differences of opinion and resolved them.

Sometimes in retrospect these differences seem very prominent. At first, indeed, affairs went smoothly. The British in Washington had their eyes on the large numbers of new ships coming off American slips. They hoped that the Americans would accept the principle that the first charge on American shipbuilding should be the replacement of any net losses of the United Nations. This would mean that the United States and the United Kingdom would be on an equal footing in reviews of shipping needs, and that allocations would be made on a basis of undisputed fact. In the autumn of 1942, these principles seemed well on the way to acceptance. A statement by the War Shipping Administration in October recognised that United States building should be available for all services without any superior call on it by the United States Services; it implied that the first call on new building was to maintain existing services (United Kingdom or United States), the remaining net gain being available for the expansion of the war effort.

It seemed that Allied shipping really was to be pooled. Be this as it may, the course of negotiations in Washington was interrupted because of growing anxiety in London about the United Kingdom import programme. Early in November 1942, the Minister of Production arrived in Washington bearing a letter in which the Prime Minister urged upon the President the extreme importance of a 27 million ton import programme for the United Kingdom in 1943. In order to fulfil this programme, the Minister of Production asked the President to transfer shipping to the United Kingdom at a level sustained at 2½ million deadweight tons of shipping throughout the year.¹

This high level approach strongly emphasised Britain's great need for ships. But unfortunately it also drove the negotiations for shipping aid away from the pooling principle and back to a much narrower basis. At first, the outcome of the Minister of Production's visit seemed very hopeful. The President, in his reply of 20th November to the Prime Minister's letter, was not ready to contemplate any transfer of flag but he was generous and reassuring. If possible, the United States

¹ This meant that losses within the 2½ million tons would be replaced and any deficiencies early in the year would be made up by extra tonnage later.

merchant shipbuilding programme for 1943 was to be pushed up to 20 million deadweight tons. The British claims to a moderate share of the benefits from this vast mass of tonnage were recognised as just; in particular, the United Kingdom's 27 million ton import programme seemed to the President substantially correct and of primary importance. He, the President, would instruct his Shipping Administration to allocate enough dry cargo tonnage out of the United States shipbuilding to meet British import requirements and to ensure the maintenance of British armed forces and other services which, though they were essential to the war effort of the British Commonwealth, could not be transported by the fleet under British control. The President mentioned a specific figure for the additional monthly allocation of shipping necessary for these purposes.

The British accepted this figure as firm; but they were, it seemed, mistaken. In January 1943 the War Shipping Administration insisted that the President's figure of assistance must be regarded not as a commitment to allocate a precise amount of tonnage but as an estimate of requirements: if a review indicated that United Kingdom imports could be reduced, if United States shipping losses were higher than the estimates, if United States shipbuilding did not come up to expectations, if military urgency demanded, then the allocation of United States tonnage might be reduced. That same January, at the Casablanca conference, the United Kingdom import programme was in constant danger. Finally, however, it was accepted that the President's commitment must be met.

This was a relief to the British, but it could not do much to increase aid in the crucial early months of 1943. The President had given warning that owing to the North African operations the allocations of shipping in that period would be much lower than the average for the year as a whole. In fact, dry cargo imports brought by United States shipping in the first quarter of 1943 added up to only 366,000 tons. These months were a time of acute anxiety for the British. 'Torch'—the North African operation—had been much more expensive in shipping than had been expected: shipping losses in the last quarter of 1942 had been highly disquieting. Total non-tanker imports in that quarter were at an annual rate of only 18 million tons.

In the first half of 1943, failing additional United States assistance, imports were only expected to be $8\frac{1}{2}$ million tons. This was four million tons less than probable consumption even though planned consumption of raw material imports in the period had already been further reduced by over a million tons. During 1942, stocks of food and raw materials had fallen by nearly $2\frac{1}{2}$ million tons. The Government was now no longer disposed to see them fall by the full four million tons it had

contemplated before the outlook had grown so sombre. The familiar reasons for maintaining adequate stocks seemed strengthened; in addition, it was now essential to avoid the obligation to import during the second half of 1943 at a rate that was higher than the capacity of the escort forces. Possible economies in food were again examined, but again it was concluded that, with one or two exceptions, the savings were not large enough to justify the dislocation and the nutritional disadvantages. Neither American aid, nor de-stocking, nor economies in consumption were, it seemed, going to close the gap between the supply of shipping and the import programme. Some drastic measure was necessary. The Prime Minister provided it in January 1943 by directing that in the next six months shipments to the Middle East and India from the United Kingdom and America should be reduced from about ninety ships a month to a maximum of forty; this was expected to yield enough shipping to raise British imports by two million tons in the first half year.

In the event, imports in the first quarter of 1943 were rather lower than in the previous quarter. The weather was exceptionally bad, 'Torch' made still further demands and the British could not draw so high a proportion of imports as they had expected from North America. There were strong fears not only for the present but also for the remainder of 1943; how much American help would really be forthcoming?

Our tonnage constantly dwindles, the American increases [ran a War Cabinet paper]. We have undertaken arduous and essential operations encouraged by the belief that we could rely on American shipbuilding to see us through. But we must know where we stand. We cannot live from hand to mouth on promises limited by provisos. This not only prevents planning and makes the use of ships less economical; it may in the long run even imperil good relations. Unless we can get a satisfactory long-term settlement, British ships will have to be withdrawn from their present military service even though our agreed operations are crippled or prejudiced.

The Foreign Secretary addressed himself to obtaining this long-term settlement during a visit to Washington in March 1943. This time, the President made a firm and unambiguous offer that United States ships would carry seven million tons of imports to the United Kingdom during 1943. Two months later, at the 'Trident' conference in Washington, the President made a new offer which put American shipping aid upon the basis that Britain had always wished. The President suggested the transfer of United States ships to the British flag.

On 7th June, just after the conference, the President wrote to the Prime Minister a letter which placed the long negotiations and the final decision in their true perspective. It recalled the division of

labour adopted by the two countries in their joint interest—that the United States should be the predominant cargo shipbuilding area for both countries, while the United Kingdom devoted its facilities and resources principally to the construction of combat vessels.

You in your country reduced your merchant shipbuilding program and directed your resources more particularly to other fields in which you were more favorably situated, while we became the merchant shipbuilder for the two of us and have built, and are continuing to build, a vast tonnage of cargo vessels.

The United States, the President added, were finding difficulties in manning their merchant fleet while the United Kingdom had a pool of trained seamen. Therefore—

in order that the general understanding that we reached during the early days of our engagement together in this war may be more perfectly carried out, and in order, as a practical matter, to avoid the prodigal use of manpower and shipping that would result from pursuing any other course, I am directing the War Shipping Administration, under appropriate bareboat arrangements, to transfer to your flag for temporary war-time duty during each of the suggested next ten months a minimum of 15 ships. I have, furthermore, suggested to them that this be increased to 20.¹

This partial substitution² of bareboat charter for the allocation of all shipping help on a voyage to voyage basis ended at last the worst of the British struggles and fulfilled the principle of mutual assistance.

When this letter was written, the shipping crisis was over. May had been the great month of victory over the U-boats. Sinkings fell rapidly and at the same time the flood of American shipbuilding was rapidly swelling. Many pressing difficulties still remained throughout the war, but the time of acute danger had passed. In the second quarter of 1943, British non-tanker imports were at an annual rate of over 28½ million tons.

This sudden change in Britain's shipping fortunes may make the Government's anxiety seem in retrospect unreal. After all, the Government knew that by mid-1943 ships would be leaving the American yards in prodigious numbers. But it did not know what benefit American building would bring to Britain; its experience of negotiations with the Americans up to that time had taught it not to expect too much. Meanwhile, it foresaw that by mid-1943 its stocks of food and raw materials would be down to what it thought were the danger levels. Its anxieties—not for the immediate present but for the impending future—were genuine. Indeed, it would be difficult to over-state them.

¹ For full text of letter see H. of C. Deb., Vol. 391, Cols 2088–2089.

² The bareboat ships were not by themselves sufficient to fulfil the earlier commitment of the President to send seven million tons of imports to the United Kingdom.

But were they well founded? How near did the United Kingdom really come to the point of danger, where supplies of food and raw materials would have been inadequate to feed the population and keep the war factories working, unless shipping had been quickly diverted from military operations? It will not be possible to give a convincing answer to this question until more research has been done; but some evidence which is already available suggests that the country was not quite so close to the margin of danger as the War Cabinet at that time believed. The estimates of minimum import requirements on which the War Cabinet based its policy were themselves based on calculations of minimum stock levels and the rate of consumption of imported commodities. On looking back, it would seem that the calculations under both heads were too sombre. For example, in the first report of the Shipping Committee, the net consumption in 1942 of importable food was put at 12.4 million tons and of raw materials at 15.1 million tons;¹ but in fact, the actual realised figures were 11.4 million tons for food and 13.3 million tons for materials. Similar discrepancies occurred between the forecasts and the statistical facts for the later war years. In the estimates for food there was perhaps considerable justification for a fair margin of error, since the Ministry of Food had always to allow for the vagaries of the weather and the possibility of a bad home harvest. There was less justification for the erroneous estimates of raw material consumption; indeed, the inaccuracies of the Ministry of Production's forecasts serve as a reminder of the limitations of war-time planning even in its later stages.

These over-estimates of consumption meant that the United Kingdom managed quite well in 1942 and the early months of 1943 with a volume of imports lower than the stipulated minimum. If it should also be proved that the estimates of minimum stock levels were in some degree inflated, the conclusion would be that the British could in this period have maintained an unimpaired war effort at an even lower level of imports: alternatively, that they could have gone on longer than the Government believed at the low rate of imports actually achieved. To some extent, the estimates of consumption and of stock levels hang together; if the former were inflated, then it followed that minimum stock levels, calculated on the basis of so many weeks' supply, were also over-estimated. There is another consideration of more general importance: during the months of crisis, the importing departments' estimates of minimum working stocks did not receive the critical analysis they deserved. In the Ministry of Food, responsibility for maintaining supplies of each food had been specifically charged to the individual commodity directors.

¹ Total consumption less home production.

These directors maintained that they could not fulfil their responsibility unless the Minister were willing to rely on their advice of what the danger level for stocks really was. Each commodity, therefore, had its own danger level, irrespective of the fact that if supplies fell below it a stock surplus of some other commodity might provide some compensation. Moreover, many of the individual figures for minimum working stocks were inflated by assuming that stocks in the earlier stages of distribution did not constitute cover for the final stage, and that the specification of purposes for which stocks might be held was in itself justification for holding a separate stock for each purpose. Sometimes, too, a figure that had originally been fixed to safeguard working stocks and to insure against high sinkings, air raid damage, etc., came to stand for minimum working stocks alone.¹ In the case of wheat, there was too little allowance for the bigger margin of safety provided by the increases in home production and in the extraction rate. It is not possible yet to reach any conclusions about raw materials stocks; at a first glance it seems probable that the margin of safety was much narrower than for food.

There is not much doubt, then, that the possibilities of stock reduction, at any rate in food, were higher than anyone at the time cared to admit—just how much higher it is impossible to say until more detailed research has been done. Nor, as this chapter has shown, did Britain adopt every conceivable sacrifice in the consumption of imports. If the country's stocks had in the event been driven below the real minimum working level, there still remained some additional economies the Government could impose.

But, until that time, the effects of the economies seemed drastic out of all proportion to the savings to be achieved. Moreover, some of the most important economies could not become effective until the worst of the shipping crisis was expected to be over. There was, for example, an undertone of agitation about domestic agricultural policy. Among the economies suggested and from time to time rejected was the reduction of 'the reserves on the hoof', partly in order to increase meat supplies but chiefly in order to substitute human food for fodder crops. Whether or not the gain to the nation's supplies of meat and other food would have been as great as some economists expected, whether or not the damage to British agriculture would have been as large as the agricultural departments forecast, are questions that cannot be discussed here.² For present purposes what matters most is the time factor. Whatever decisions were taken about cropping programmes in the spring of 1942, their effects would not

¹ Since these stocks were sacrosanct, every ton of food allocated to them unnecessarily was, in the words of Mr. R. J. Hammond, the historian of Food Policy, 'condemned to uselessness only less surely than if it had been destroyed'. See *Food*, Vol. I, Chapter XXI.

² They will be discussed in the histories of food and agriculture.

materialise until the 1943 harvest had been gathered in and threshed; consequently, any relief they might bring to the import strain would hardly be felt before 1944, when by all reasonable expectations the shipping position should be easier.

A more valid criticism of the policy towards economies is that, once it had been decided to adopt them, they were not always followed through with the sense of urgency the shipping difficulties demanded. Dilution of bread was the outstanding example. In the summer of 1942 it was decided to dilute bread with potato flour; but, since the decision was taken under a complete misunderstanding about the technical difficulties and the availability of surplus potatoes, the proposal had to be abandoned. It was then agreed that oats and barley should be used as diluents. But reluctance to sacrifice the quality and uniformity of the loaf or to interfere unduly with the requirements of other users of oats and barley meant that five per cent. dilution of bread did not begin until mid-January. Ten per cent. dilution was not achieved until July 1943, and indeed most of the saving in imported wheat occurred after the shipping crisis was over.

It is arguable, then, that the United Kingdom might have managed during the months of severe U-boat attack with an even smaller volume of imports. But it is easier to pare margins of safety in retrospect than at the time of acute uncertainty and danger when caution seemed eminently necessary. Even if the United Kingdom did not cut imports to the bedrock minimum, it cut them very low; in 1942 they were less than forty-two per cent. of the pre-war average. 'We should not start,' wrote the Prime Minister, 'on the basis that the British should make a greater sacrifice of their pre-war standard of living than the American people.' But when the Prime Minister wrote this, the British people had been, long since, on that very basis.

Assuming that Britain might possibly have managed with an even lower level of imports, what were the military consequences of her actual demands? Preliminary research suggests that these demands did not in any way impede the United Nations' war effort. There is no evidence that major strategic planning was governed by the shipping shortage. The shipping implications of the plans needed the most careful thought and certainly caused much anxiety; but the necessary shipping for the big operations was always found. Shipping, after all, was only one of many problems and not necessarily the most difficult. Strategy had its political and tactical implications: quite apart from this, scarcities of escort vessels, of landing craft and of troops trained in amphibious warfare constricted immediate military plans. But might it not perhaps be argued that the assembly of resources for the great operations of future years might in some degree have been expedited if British civilian imports had been cut, say, by an additional million tons? Only the military historian is

competent to say whether the curtailment of sailings to the Far East, imposed early in 1943 for the sake of the British import programme, really retarded the growth of British striking power in that area. At the time, the Prime Minister argued strongly that the curtailment was a stimulus to efficiency rather than a drain upon it. What of the movement of American troops to Britain? Undoubtedly, the build-up of American troops and their equipment in the United Kingdom might in some small measure have been expedited if some additional tonnage had been freed by slicing something extra from British civilian imports. But here the Prime Minister's observations about the double standard—one standard for British, the other for American sacrifices—again becomes relevant. British civilians had already made sacrifices much greater in degree and in kind than those imposed on American civilians; British soldiers by American standards were austere equipped and fed.

It is as well not to pursue these reflections too far. The United Kingdom had its own very rigorous standards of sacrifice. Although, judged by those standards, some of the minor items of import policy may be open to debate, there can be no doubt that the policy was in its main emphasis and direction both efficient and austere.

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Towards D-Day

In the period of twelve months between the end of the shipping crisis and the Normandy landings, the chief preoccupation in shipping circles was the planning of shipping movements for the big military operations.¹ The period is a most important one; but here it must be treated with the brevity of a postscript.

From the point of view of Britain's own internal problems and, in particular, her import programme, shipping caused few real difficulties from the middle of 1943 to the end of the war. The swift decline in sinkings and the increase of American allocations of tonnage for United Kingdom services, together with growing shortages at the sources of supply, made ships for the import programme more plentiful than cargoes. In the event, nearly 26½ million tons of dry cargo imports arrived in the United Kingdom in 1943. Net consumption of imports was so much less than the estimates—partly because of a bumper home harvest—that by the end

¹ The Minister of War Transport was an important member of the parties that accompanied the Prime Minister to the 1943 conferences with President Roosevelt where Allied strategy was planned—Casablanca in January 1943, Washington in May, Quebec in August and Cairo in November and December.

of the year stocks of imported food and raw materials were $2\frac{1}{2}$ million tons higher than at the end of 1942 and slightly higher than at the end of 1941. Indeed, the importing departments were hard pressed to find sufficient storage space; rawsugar and oil-seeds had to be left in the open under tarpaulins. The nightmares of the winter of 1942-43 had been dispelled; at the time when the great military offensive of the war was impending, the United Kingdom had no need to fear the consequences of an interruption of overseas supplies.

More real in this period was the fear that the United Kingdom's port and inland transport system might not be able to cope with all the invasion preparations on top of the normal import traffic. In the first half of 1944, the ports and inland transport were indeed strained to their limits; but they worked at such a high pitch of efficiency that the limits were wider than had been expected.

Despite these changes in the basic facts, the old anxieties about shipping persisted on both sides of the Atlantic. For this there was some justification. The growth of the United Nations' pool of shipping was matched by a great increase in military demands. Plans for building and speeding the great offensive across the immense distances of the Pacific were added to the shipping movements for 'Overlord'. The expansion of the eastern fleets brought increased demands for merchant auxiliaries. Moreover, many of the ships being built had to be converted into special Service types. Such demands added up to big totals and made the supply of shipping seem more stringent than had been expected. But the stringency was not always as real as it seemed. On the American side, requirements were considerably inflated; on the British side, anxiety about stocks seemed sometimes to be mere habit. Though it was deeply rooted in a hard experience, it needed criticism.

In this chapter we must limit our criticism to the British case as illustrated by the problem of food stocks.¹ In 1944, there were still very good reasons for maintaining high stocks in the United Kingdom. New forms of air attack might have devastating results. Moreover, from the point of view of the Allies as a whole, the United Kingdom was the only country with controls strong enough to ensure that stocks were safe from dissipation. Nevertheless, a main purpose of building high stocks had been to make it possible to contemplate with equanimity a reduction in imports during military operations. As the time for the decisive operations drew near, this purpose slipped out of view. The Government showed itself reluctant to countenance import programmes which would mean big drafts on stocks. Were stocks becoming almost an end in themselves? There is no suggestion that the Government's caution adversely affected the

¹ Food stocks will be fully discussed in Mr. Hammond's history of Food Policy. Further research is necessary into raw materials stocks.

invasion of Europe. It may however have done damage elsewhere. For example, at the beginning of 1944, when the crisis in India's food supplies was at its worst, the War Cabinet would not contemplate any further inroad into the British import programme. Indian wheat requirements had to be met at the cost of Indian military maintenance.

The Americans and the British both had their weak points. As each probed the other's, a certain amount of friction was generated in the combined planning machinery. British suspicions that the Americans' demands were inflated were intensified because the demands were not analysed. The British, on the other hand, analysed their own demands fully; but the Americans had not the necessary knowledge to check those items, such as minimum stock levels, of which they were suspicious.

These difficulties should not be magnified. They should not conceal the central fact about shipping in this culminating period of the war. The defensive phase of the war at sea was over at last. While that phase lasted, maintenance of the war-making power of the United Kingdom had been the first objective of British shipping policy. Through long years, the Merchant Navy and those responsible for the management of British shipping had done their jobs well. By the middle of 1943, the American shipbuilding yards were fulfilling all the high hopes placed upon them. The combined shipping authorities had gone far towards sharing out available supplies of shipping. At last, the United Kingdom import programme could be relegated to the background. The theme was now the mobilisation of shipping for attack.

CHAPTER XV

MANPOWER

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Manpower Budgeting

IT has already become a commonplace of history that the United Kingdom's war effort was stretched practically to the extreme limits that its economy could sustain. But what in the end determined these limits? What factor in the economy finally became a barrier to any further expansions in the numbers of fighting men that could be raised, equipped and maintained? As we have seen, the high pitch of the United Kingdom's mobilisation owed much to help from the Dominions and the United States. This external aid, however, was regarded not as a reason for any slackening of British efforts but as an opportunity for pushing more and more British resources into the most direct forms of war-making. In studying the ultimate constrictions on the size of the United Kingdom's war effort, we can, therefore, take for granted the international division of effort.

The limitations on the expansion of the war sector of the British economy varied of course according to the different stages of the war. In the early years, there was no single all-pervading shortage in the war economy. For many months, as the Service and supply departments pushed ahead with their ambitious programmes, they stumbled upon one obstacle after another. Skilled labour, machine tools, extrusion presses, drop forgings, the right type of steel, the building of factory extensions—a succession of these special difficulties hampered production. But all of them could be overcome by time, skill and organising ability. Given these precious commodities, the ultimate size of the United Kingdom's war effort depended upon its ability to import and its ability to find an ever increasing number of men and women for the Forces and war industry. As we have seen, the continual fears that imports might be insufficient to support the war effort were not realised. In the end the limits to the expansion of the United Kingdom's war economy were set neither by shipping, nor port capacity nor foreign exchange but by manpower. It was lack of manpower that made it impossible to increase the total size of the Forces and munitions industries reached in the summer of 1943 or even to keep them at that level.

At the time of Pearl Harbour, manpower had not yet become the most intractable of shortages. As we now know, the Army and Air Force were, in December 1941, at eighty-four and eighty-one per cent. respectively of their final war strengths;¹ the Navy was only at fifty-three per cent. Moreover the demands of the munitions industries would clearly continue to rise for some time. But although the manpower shortage was destined to become very much worse, it was by the end of 1941 already severe. The increasing stringency in that year had led to several important developments in the progress towards a system of manpower budgeting. First, in the early spring, the Prime Minister had fixed a ceiling for the Army, and then, in the summer, the War Cabinet had called for a comprehensive manpower review.² By that time, the poverty of information for estimating labour supplies had been mitigated; in consequence, it was found possible to prepare for consideration by the War Cabinet a careful balance sheet of the demands for labour and the prospective supplies. Individual demands were not seriously questioned and the War Cabinet's chief concern was to approve the policies that would bring forward the additional two million or so men and women who were needed. The procedure that had been followed—that is, after the July count of unemployment insurance books, to prepare a grand survey of labour demands and supplies upon which the Government could formulate its manpower policy—became the basis of later manpower budgeting. But, at the end of 1941, it was not yet firmly established.

The War Cabinet's manpower discussions in the last months of 1941 had scarcely ended when the figures in them were completely upset by Pearl Harbour and the revolution in the scale and nature of the war. It was necessary to disentangle, from the strategy approved at the Anglo-American conferences, the British share of responsibility. This in turn had to be translated into Orders of Battle and, ultimately, production programmes. We have already seen that these big questions were not settled until late in 1942. Immediate strategic plans were uncertain until the late summer and the British share of the United States' munitions production was not agreed until still later.³

So long as the general background remained so unsettled, labour supplies and demands were necessarily uncertain. On the supply side, there were doubts about the numbers of fit men who could be found for the Services and munitions industries. For example: at the end of 1941 the Government had marked down the building and

¹ This excludes the artificial inflation of figures caused by the return of prisoners of war in the spring and summer of 1945.

² See Chapter XI, Section (i).

³ See Chapter XIII.

civil engineering industries as a rich source of such men ; but, in 1942, the plans for bringing great numbers of American troops to the British Isles clearly meant that most of the men who might have gone from these industries into the Army would be needed instead to work in camps and airfields for the United States Forces. Demands were afflicted by uncertainty even more strongly. Throughout the first months of 1942, ministers were faced with a succession of specific and urgent claims which, in the absence of a reliable manpower budget, had to be settled piecemeal. Four problems became particularly acute. Further pressing demands for recruits came from the Services, especially from the Army. The shipbuilding programme was in difficulties. So was the aircraft programme. And there was a crisis in coal production.

It was not the new dimensions of the war that caused the coal crisis. This problem of the domestic front simply happened to come to the fore at a particularly unfortunate time. Many factors contributed to the alarming discrepancy that appeared in the spring of 1942 between prospective coal supplies and demands and there was no single method of balancing the coal budget.¹ But one thing was clear; there seemed no hope of achieving a balance unless more miners were recruited for the pits. The figures put before the War Cabinet suggested that it was necessary to increase the labour force of the mines to 720,000 by finding immediately 15,000 active coal-face workers. The Government agreed that miners should be withdrawn from key industries that had been safeguarded during previous combings, and also that coal-face workers serving in Army rearward formations at home should return to the mines. These measures, however, would still leave the mines short of 7,000 men who could only be found by raiding the Army field force units at home. The War Cabinet felt unable to take a step so grave, for it would derange the solidarity of the Army; it preferred to revise the production and consumption sides of the coal budget and if necessary to run the risk of a coal shortage.

Soon after the discussion about coal, pressing demands came forward for more labour in the shipyards. The heavy strain on the Navy had led the War Cabinet in April 1942 to approve a large programme of new naval construction. But in May, the whole naval programme was falling badly into arrears. The Admiralty protested that this failure was largely due to lack of labour, that the volume of labour in shipbuilding and repairs had risen by a very small proportion in the context of the total rise in war production, and that the shipyards and marine engineering shops must be granted forthwith 34,000 more men, forty per cent. of them skilled. The Ministry of

¹ See below, Chapter XVI, Section (ii).

Labour, however, felt strongly that, even after two years' insistent pressure, the shipbuilding industry still did not know how to make the best use of its labour. This argument was stilled by an independent inquiry by the Ministry of Production into shipyard labour. Meanwhile, the Defence Committee of the War Cabinet agreed that the shipyards ought to be helped by the return of some 2,700 skilled men who had registered as shipbuilding workers in 1941 but had not been transferred because of the importance of their present employment. The unskilled labour demands were to be dealt with by the normal preference machinery.¹

The labour demands of the aircraft industry were even more difficult to plan than the shipbuilding demands. At the big Anglo-American conferences on strategy, the importance of air attack on Germany was always stressed. The maximum British and American output of aircraft would be necessary in order to make the bombardment as heavy as possible. The Defence Committee watched anxiously the output of British aircraft and from time to time felt some dissatisfaction about it. Why was output not hitting the targets? This question was the source of much misunderstanding during 1942 between the Ministry of Aircraft Production and the Ministry of Labour. The Ministry of Aircraft Production would insist that its inability to fulfil its programmes should be measured by the deficit between its estimated labour requirements and the actual intake of labour. The Ministry of Labour would reply not only that the Ministry of Aircraft Production was still using its labour inefficiently but that in any case it was receiving all the labour it could physically use. Estimated requirements could not, the Ministry of Labour said, be faithfully followed. What firm could estimate its needs accurately even for three months ahead, when production was subject to the hazards of enemy action, shortages of raw materials and tools, modifications in design and changes between types?

This controversy appeared all too frequently in ministerial discussions and at length, in the summer of 1942, the Lord President and the Minister of Production undertook to inquire themselves into the labour requirements of the aircraft industry and the methods of estimating them. This inquiry was unable to reconcile the sharply divergent views about the degree to which lack of labour was retarding the aircraft programme. It did, however, establish the fact that individual employers' estimates of labour requirements, even when vetted by government departments, were unreliable. But although these estimates were most uncertain as a measure of labour shortages, they were indispensable as a broad guide to manpower policy. It was necessary therefore to produce some estimate of requirements for the

¹ See p. 303 above and p. 463 below.

last half of 1942 and it was agreed that the aircraft industry in this period would need another 208,000 men and women. But by now it was October and the Ministry of Labour refused to be drawn into any forecasts of how these numbers would be supplied before the annual manpower survey was ready. The War Cabinet agreed that the Ministry should, instead, concentrate on meeting the urgent labour needs of particular factories.

The fourth and perhaps the most important of the manpower demands that troubled the Government during the uncertain months of 1942 concerned recruits for the Services. By the summer of 1942 the Army had reached its authorised manpower ceiling. But by then, the changes in the character of the war had made the ceiling too low. There had been severe losses in the Far East, the African campaign was developing greatly, more soldiers were needed in India, 'tails' had to be provided for the additional divisions going overseas and finally there was now the prospect of entering the Continent of Europe with heavy casualties and with the troops operating perhaps in 'an administrative desert'. The Lord President was asked to examine these demands. In September he was just on the point of recommending that the Army ceiling should be advanced by about 100,000 men and that there should be more elasticity in the interpretation of the ceiling, when the War Office put forward big new demands. Largely on account of the plans to invade N.W. Africa, the Army needed another quarter of a million men between September 1942 and April 1943. This was in itself a severe shock and a week later came more bad news. The R.A.F. asked for 120,000 more men above the figure sanctioned for 1942.

Already a strong committee of the War Cabinet had been appointed to examine Service establishments with a view to reducing the number of non-combatants. When the new demands came in, the Prime Minister himself issued some more forceful injunctions to the Services. 'I must make it clear,' he said, 'that those who do not try to make both ends meet and to save at every point are not helping the war effort of the country.' He ordered searching inquiries into wastage scales, into the increases of R.A.F. ground staff, and into airfield defence. Moreover, he pointed out that disappointments in the supply of aircraft would cut the R.A.F.'s new demands by fifty per cent. After much work by officials and ministers, a final agreement was reached. The Services were to receive, over the last six months of 1942, 59,000 more men than had previously been sanctioned. These numbers were to be obtained by a variety of means. The call-up age was to be reduced from 18½ to 18. Some of the men in the building trade who had been deferred to help with 'Bolero'¹ were to be called

¹ This was the code name for the movement of American troops to the United Kingdom.

up. Some of the R.A.F. mechanics loaned to the aircraft industry were to be recalled, and the R.A.F. was to draw on its Deferred Service List.¹

The difficult discussions about Service intakes lasted well into the autumn. By then, the disadvantages of dealing with a succession of short term problems without a clear picture of the general manpower position had become only too apparent. The completion of the new manpower survey was awaited with eagerness and impatience. Preliminary attempts that had been made during 1942 to survey the manpower position as a whole had not been very successful. The attempts had been initiated not by the Ministry of Labour but by the Joint War Production Staff, which had been established in March 1942 under the aegis of the Minister of Production in order to provide a link between strategy and production and to serve as a kind of Chiefs of Staff Committee on the production front. The J.W.P.S. was led by its researches to conclude, in the autumn of 1942, that forthcoming Service and supply demands for labour could not possibly be fulfilled. It suggested that definite ceilings would have to be fixed not only for the Services but also for the munitions industries. These conclusions were to be proved right; but it was difficult at the time to put much faith in them, since they were based on very uncertain figures. In any case, it was a wasteful duplication of effort to have more than one official attempt at a general manpower survey. Any uncertainties about the division of responsibility for manpower budgeting between the Ministry of Production and Ministry of Labour were finally banished by the appearance, in October, of the full-scale manpower survey made after the July count of unemployment insurance books. The initiative in handling the survey lay with the Ministry of Labour.

The 1942 manpower survey made it clear that previous methods of budgeting were out of date. Hitherto, it had been possible to formulate the demands of the Services and munitions industries and then invite the Ministry of Labour to find the necessary supplies. But now, in 1942, the additional men and women needed to meet the new demands and at the same time maintain necessary civilian standards, simply did not exist.

Once more, the task of focusing these crucial issues for the War Cabinet fell upon Sir John Anderson. In the mass of preliminary work, procedure was dictated by the acute scarcity of labour; it was necessary first to estimate supplies and then consider where demands should be cut to fit supplies. Since the year 1942 was nearing its end, the period under review was extended to the eighteen months from July 1942 to December 1943.

¹ The purpose of this list had been to insure the R.A.F. against a possible shortage of men for aircrews.

A first investigation suggested that in this period there might be a maximum net supply of 1,867,000 men and women. After allowing for the complex movements between the Services, munitions and other industries, the main ultimate sources of this supply would be the equivalent of half a million full time women from the 'non-industrial' population and 900,000 men and women from the Group III industries¹ which were still at that time known as 'less essential'. But an examination proved that withdrawals from all industries on such a scale would mean a fall in civilian standards that could not be recommended to the War Cabinet. It was increasingly unreal to talk about 'less essential' industries when this group included, for example, cotton spinning, leather manufacture and home-grown timber, when many of the industries had a considerable proportion of their labour on government work and when exports were mostly restricted to supplies essential for sustaining Empire and Allied countries. Some specifically 'civilian' industries in the group, such as distribution and industrial assurance, could be compressed much further; but others, such as pottery and laundries, were already in severe difficulties. It was therefore concluded that unless the Government was ready for major changes in civilian standards, export policy, or Service requirements, Group III as a whole could not yield more than half a million workers. Consequently, in addition to the recruitment from the non-industrial population and from Group III, a special contribution would have to be exacted from the building industry and from certain Group II industries. There must also be a comb out of government services, Civil Defence, prisoners of war, and rejects from the Forces. All these supplies, added together, came to 1.6 million men and women.

The Lord President and his officials examined the demands for labour, no less than the supplies. It seemed that the Services' demands were well in accord with their strategic commitments. The Army's requirements were based on a recent directive by the Minister of Defence about its layout and strength during 1943.² The Navy's figure was the minimum requirement for manning new construction and meeting such demands as those of Combined Operations. The R.A.F.'s figure represented the numbers needed to fill deficiencies in establishments, to achieve the approved expansion programme and to replace wastage. Finally, the demands of the munition industries seemed to have been worked out as carefully as possible and to have taken account of limitations other than manpower and of the increasing efficiency of labour.

¹ Or rather, all the Group III industries except building which was considered separately.

² This directive stated that the Army's strength should be built up to the equivalent of 100 divisions (including Dominion and Colonial troops and Allied Forces attached to the British army). This figure is not comparable with the fifty-five divisions planned earlier in the war (see p. 288 above). The fifty-five divisions referred to the field army; moreover the concept of divisional strength is quite different in the two cases.

Following all this preliminary investigation, the Lord President put before the War Cabinet the following picture of total demand and supply for the eighteen months ending December 1943.

	Demands			Supply		
	Men	Women	Total	Men	Women	Total
Services . .	1,301,000	303,000	1,604,000	700,000	220,000	920,000
Industry . .	250,000	835,000	1,085,000	250,000	430,000	680,000
Total . .	1,551,000	1,138,000	2,689,000	950,000	650,000	1,600,000

The gap of more than a million that these figures disclosed was too large to be closed by the familiar process of trimming demand and stretching supplies. Moreover, two thirds of the total deficiency arose in the armed forces whose needs could be met only by fit men of military age, and limited classes of women. The country's manpower resources simply did not match its present programmes. It was impossible to meet the essential needs of the Navy, build up an Army equivalent to 100 divisions and expand the R.A.F. to over 600 operational squadrons. Now that the United States had entered the war, Britain would have to supply from home resources—so it then seemed—much of the equipment she had hoped to draw from America; this would mean that manpower the Government had once hoped to earmark for the expansion of the Services would have to be kept in the munitions industries. The only solution was to make substantial cuts in the programmes of the Forces.

The Prime Minister himself made the proposals for reductions. He was inclined to think that the possibilities of supply had been over-rated and that the health and efficiency of the people would be damaged by any new stresses. The hopes of the Services must therefore be clipped; from this conclusion there was no escape. As far as the Navy was concerned, Mr. Churchill said, the greatest peril was submarine attack. The highest priority must therefore be given to anti-submarine vessels and weapons, at the cost of delay to other parts of the Navy's programme. The Army should be able to reach its required strength by more drastic pruning of rearward formations and by absorbing men from Civil Defence, the static defences and Air Defence of Great Britain, all of which could be reduced now that invasion and heavy air attacks were less likely. The demands of the R.A.F. and the Ministry of Aircraft Production were to be governed by the importance of increasing the output of aircraft rather than the numbers of officers and airmen. In making reductions it was imperative that the supply requirements of the Services should not exceed real needs; at the moment the requirements in some cases seemed

absurdly high.¹ The Prime Minister was well aware that the reductions he suggested would mean hardships, but he asked his colleagues to apply them 'with the best housekeeping ingenuity' and to keep as much as possible of the offensive power of the Services.

The hardships of the cuts proposed by the Prime Minister were only too apparent. The Army cut might mean a reduction of four divisions on its planned strength.² The R.A.F.'s programme would fall by about fifty-seven squadrons during 1943 and by about eighty-nine in mid-1944. In addition, the Ministry of Aircraft Production cut would lose fourteen heavy bomber squadrons by the end of 1943 and nineteen by mid-1944. It was doubted whether the Admiralty, even when it devoted an increased proportion of its total resources to the war against the U-boats, would be able to wage that war with full efficiency. Finally, if there were in fact heavy air attacks, the emasculated Civil Defence Service might be inadequate to prevent fires from burning themselves out, and to rescue trapped casualties.

These objections were all considered, but no satisfactory alternative cuts were found and the Prime Minister's proposals were broadly accepted. The detailed adjustments between the related Service and supply programmes were left to be decided within the Admiralty, between the Army and the Ministry of Supply, and between the R.A.F. and Ministry of Aircraft Production. In December 1942 the allocations for the eighteen months were completed as follows.³

Thousands of men and women			
	Original Demands	Cut Imposed	Allocation Authorised ⁴
Navy . . .	323	} 75	} +434
Shipbuilding . . .	186		
Army . . .	809	} 380	} +351
M.o. Supply . . .	148		
R.A.F. . . .	472	} 225	} +750
M.A.P. . . .	603		
Civil Defence . . .	—	75	— 75
Miscellaneous . . .	135	19	+116
	2,676	1,100	1,576

The 1942 manpower budget had several notable features. The most important was that, for the first time, all the sections of the economy had been taken into account, even though the names of

¹ One example quoted by the Prime Minister was 3·7 anti-aircraft ammunition. Existing stocks were, at the highest rate of expenditure in the 1940 blitz, equivalent to fifty months' supply, yet planned production was enormous.

² See footnote on p. 444.

³ In November 1942 just before the final allocation, the Minister of Production returned from America with a guarantee that the essential munitions requirements of the United Kingdom would be met. (p. 400 above.)

⁴ i.e. increase or decrease over labour force on 30th June 1942.

the government departments with negative allocations did not yet appear on the balance sheet. Subject to detailed adjustments between each Service department and its supplying department, there were now authorised maximum entitlements for the labour force of each Service and supplying department.

Moreover, the budget marked a significant stage in the mobilisation of the economy. The army was believed to have received the major part of its capital equipment; in consequence the Ministry of Supply's labour force was henceforward to contract. On the other hand, it was necessary for the first time to make a positive allocation to certain civilian industries and services outside the munitions field.

At the end of 1942, allocations had been necessary for as much as eighteen months ahead in order to survey the dimensions of war programmes against a realistic background and in order to formulate manpower policy clearly. But eighteen months was a long period when strategic plans were moving swiftly, and in the spring of 1943 the Government felt it was necessary to review progress. The Ministry of Labour therefore produced an interim survey. In some ways, the progress that had been made was very good; the total intake into the Forces plus the net increase in munitions and other war work during the first half of the eighteen months period had been well ahead of schedule. Unfortunately, this review of total figures masked important individual discrepancies between the original allocations and actual events. Owing to the time lag in making production changes, the Ministry of Supply's labour force had gone up instead of down. There had been a net increase of 130,000 workers in industries and services for which the Cabinet had made no allocation. More disquieting still was the fact that the Ministry of Aircraft Production had been receiving far less labour than its entitlement.

It would not have been too difficult, during the last nine months of 1943, to set right these divergences from the original plans. But the plans themselves proved unstable. The three Services and the merchant navy came forward with big further demands. The change from a defensive to an offensive war was proving expensive in manpower, and the Services were emphatic that they could not fulfil the operations now being planned with the manpower allocations granted in 1942. Nevertheless, the total demands the Services put forward—about 375,000 men and women above their allocations for the last nine months of 1943—bore little relation to manpower realities. Indeed, in the summer of 1943 it became apparent that Great Britain had reached the limits of mobilisation; during the rest of the year recruitment from the non-industrial population would not be sufficient to offset the normal wastage from industry. Before long the labour force would decline. In any case, supplies of labour in the last nine months of 1943 would be less than had been expected.

The demands of the Services and industry for the last nine months of 1943 added up to 912,000 men and women; the prospective supply was 429,000. Once more ruthless cuts would have to be imposed. The Service demands could not possibly be met in full; but the three Ministers concerned proved their case that some increase in their allocations was necessary. In addition, the Group II industries claimed more attention; it was agreed that this Group should receive a definite allocation to be divided out amongst the various industries by the Lord President. It remained to find the men and women to meet the approved demands. At this stage it became clear that the original 1942 demands of the two biggest supply departments—the Ministry of Supply and the Ministry of Aircraft Production—had been greatly exaggerated. The Ministry of Supply, it was now agreed, must release much more labour than had originally been planned. The Ministry of Aircraft Production could be expected to fulfil its programmes with considerably fewer men and women than the extra half million which had been allocated to it for the period from July 1942 to December 1943.

The Ministry of Aircraft Production's demands could be cut; but after they had been cut it was essential that they should be met. This was the salient conclusion of the manpower discussions of mid-1943: the real absorptive capacity of the aircraft industry, once it was determined, must be satisfied. In the previous months, the net increase of labour in the aircraft factories had not been sufficient even for the new 'realistic' aircraft programme approved in January 1943. According to the Prime Minister, the greatest shortcoming threatening the war effort was this falling off in the planned supply of aircraft. Somehow or other, the labour must be found for aircraft production. The genuine and immediate demands of the Ministry of Aircraft Production had by now become extremely difficult to meet; for they were concentrated in the worst labour areas and the shortage of mobile women was acute. A series of stringent administrative measures were needed to fulfil the demands. Intake into the women's Services would have to be reduced to a minimum; women up to the age of fifty inclusive would have to register for employment; the Ministry of Aircraft Production would have to keep the mechanics loaned to them by the R.A.F.; the Services would have to postpone, for the time being, their claims on men employed on aircraft production; the Ministry of Supply must so far as possible make its releases of men in areas where the Ministry of Aircraft Production needed them; the highest preference must in effect be given to the filling of vacancies in aircraft production. These measures were willingly approved by the War Cabinet.¹

¹ For implementation of these measures see Section (ii).

After all these discussions, the adjusted manpower budget for the period from 1st July 1942 to 31st December 1943 appeared in July 1943 as follows:

Thousands

	Strength at 1st July 1942	Original allocation	Adjusted allocation (July 1943)
Navy	527	323	339
Army	2,592	429	511
R.A.F.	961	247	311
Admiralty (Supply)	814	111	111
Ministry of Supply	1,656	— 78	—165
M.A.P.	1,514	503	259
Other essential industries and services		116	163
		1,651	1,529

NOTE: The total in the last column of the table on p. 446 is 75,000 less than the total 'original allocation' here given on account of the Civil Defence entry.

These total authorised demands in fact exceeded prospective supplies; in the last nine months of the period the deficit threatened to be about 56,000. The War Cabinet felt however, that since the estimates of supply were provisional it was justifiable to budget for a deficit. But it was emphasised that, if the deficit materialised, it was on no account to fall on aircraft production.

Manpower had become an almost continuous preoccupation of the War Cabinet. When the mid-1943 review was ended, it was already time to look forward to the results of the July manpower survey. During 1943 a budget would have to be drawn up for the next manpower period—this time the calendar year 1944. The completion of the budget before the end of 1943 meant that manpower distribution was planned well ahead and would not have to accept accomplished facts. On the other hand, there were no figures for the strength of the Services and various industries at the end of 1943 and the budget dispositions would probably have to be revised.

When the 1943 manpower survey appeared it was clear that no one had been daunted by previous experience; the total demands for additional men and women came to 1,190,000. The fantasy of such figures—however impressive the arguments that accompanied them—was amply revealed by the estimate of labour supply. As previously forecast, wastage from the country's labour force was bound to exceed new intake. Even without battle casualties, the total occupied population of the United Kingdom would fall by about 150,000 in 1944. The manpower problem was no longer one of closing a gap between demand and supply by subtracting at the demand end and adding at the supply end. Nothing was left to add. The country was fully mobilised and all that remained was to change the distribution of manpower as the strategy of war demanded. In planning for 1944,

the main strategic question mark was the duration of the war with Germany.

The Prime Minister put forward two alternative assumptions. First it might be assumed for manpower purposes that the maximum effort must be made in 1944 and that Germany would be defeated by the end of that year. This would make it possible to slash requirements for munitions which could not be delivered until after 1944, and for men who could not be trained to fight in 1944; training organisations and the like could also be reduced. Secondly, it might be assumed that the German war would continue well beyond 1944. On this assumption, the Forces and munitions industries had been built up to levels that could not possibly be maintained; substantial reductions would be necessary and plans would have to be made for keeping them in balance. On either assumption, American aid would be necessary; if the German war ended in 1944, the aid would be chiefly in equipment for British Forces; but if German resistance were further prolonged, American Forces would have to make good increasingly the decline in British fighting strength. One thing, however, was already clear. The timing of peak mobilisation had proved fortunate. Britain could afford to keep her armed forces at their extraordinarily high level for the great attack on Europe, in the knowledge that American mobilisation was now great enough to make the gamble safe.

Ministers agreed to work on the first assumption and they appointed a Manpower Committee,¹ with both an official and a ministerial section, to work out a manpower solution for 1944 on this basis. The Committee concluded that to ensure the maximum effort in 1944² the prime necessity was for further intakes into all three Services and the merchant navy and for increases in coal-mining and inland transport; there was fear lest deficiencies in these last two 'civilian' industries might handicap the invasion of Europe.³ The only way of meeting these demands was to reduce the labour force of all three supply departments (even including the Ministry of Aircraft Production) of Civil Defence and of some of the Group III industries. Protests about the detailed allocation figures that were suggested inevitably arose; a further reduction in Civil Defence, for example, seemed risky in face of possible rocket attacks and air-raids on invasion assembly points. But in December 1943 the War Cabinet accepted the figures as the best method of deploying the limited manpower.

¹ The chairman of the ministerial committee was Sir John Anderson who remained manpower co-ordinator after becoming Chancellor of the Exchequer in September 1943.

² The Committee allowed for existing plans for operations against Japan in 1944 and its figures did not take really unreasonable risks should the German war continue throughout 1945.

³ See Chapter XVI.

Manpower Allocations, January to December 1944

	Thousands		
	Original Demands	Allocated Dec. 1943	Revised Allocation Sept. 1944
Navy	287	72	58
Army	343	147	217
R.A.F. . . .	142	65	49
Nursing Services . .	4	4	5
Total Services . .	776	289	331
Civil Defence . .		-50	-50
Group I			
Admiralty (Supply)	71	-13	-68
Ministry of Supply .	31	-220	-170
M.A.P.	12	-69	-198
Other Group I . .	6	-10	13
Total Group I . .	120	-312	-423
Total Group II . .	240	123	75
Group III			
Expanding items . .	56	49	31
Contracting items .	106	-197	-95
Decline in industrial population		-150	-175

The distribution of the Group II¹ and Group III allocations was left to the Manpower Committee. The supplies of labour available were so small that this task was far from easy.

It will be seen from the last table that the budget was revised during 1944. During that year, the difficulties of budgeting in a war economy that had passed peak mobilisation were very great. New demands for the assault on Europe upset the original programmes. The Ministry of Supply, faced with such new and urgent operational demands as the 'mulberry' harbours and with bigger requirements for artillery ammunition following experience in Italy, were releasing nowhere near the numbers planned. The railways and ports needed still more workers to cope with invasion traffic. The results were apparent not in the intakes into the Services, but in an over rapid decline of the labour force in shipbuilding and aircraft production and in a failure to reach the increases planned for Group II industries (other than the merchant navy, coal-mining and inland transport) and Group III industries. Moreover, soon after D-Day it was clear that intakes into the Army must be increased in order to keep its decline and the 'cannibalisation' of divisions to a minimum. The budget adjustments in September 1944 were designed for this purpose.

These budget discussions of the autumn of 1944 were the last to focus almost exclusively on the German war.

¹ The War Cabinet itself made specific allocations for three of the Group II industries—the merchant navy, coal-mining, and inland transport.

In the later years of the war manpower budgeting had become a very powerful instrument. It was, in fact, the only method the War Cabinet ever possessed of determining the balance of the whole war economy by a central and direct allocation of physical resources among the various sectors. During the first two or three years of war, physical and financial controls had been dispersed among many departments and committees. When manpower became the decisive shortage the situation was transformed: every economic enterprise needed manpower, and to control its distribution from the centre signified direct central planning of the whole economy. At the end of the war, the manpower budgets were the main force in determining every part of the war effort from the numbers of R.A.F. heavy bombers raiding Germany to the size of the clothing ration.

In many ways the budgeting process was somewhat crude. For example, much depended on the reliability of forward estimates of demands and supplies. In some directions, a great deal of skill in the compilation and use of statistics was developed; in others, calculations remained uncertain to the end. Behind these difficulties lay the very nature of the war itself. Budgets had to be planned for reasonable periods ahead but the changes and chances of war made strategical priorities fleeting. In December 1942, for example, the building of naval vessels was the top priority. Yet less than a year later the First Lord of the Admiralty was saying that, owing to the difficulties of manning ships, all new ships except destroyers completed after March 1944, besides many existing ships, would have to be put into reserve. No one could have foreseen in December 1942 that the U-boat peril would decline so swiftly. The rise and fall of the aircraft production priorities is another important example of rapid change with which the manpower budgets had to try to keep pace. On the whole, manpower budgeting succeeded in being surprisingly flexible.

The development of the techniques and procedures of manpower budgeting is impressive. However, the main point about budgets is that they should be implemented. We must now turn to see how far the plans were fulfilled and by what means.

(ii)

Implementing the Budgets

It was a far cry from the complicated arithmetic that culminated in the precise manpower budgets set forth in the War Cabinet conclusions to the daily work of the thousands of employment exchanges where the figures were translated into so many men and women with

individual histories and problems. Yet the redistribution planned in the budgets had finally to be made through these exchanges. The immense variety of regional problems, types of labour and personal circumstances made the whole process indirect and infinitely complex. It was so complex that it is surprising to find that the budgets did in fact come within reasonable distance of fulfilment.

Manpower Allocations and Achievements

Thousands

	1.7.42 to 31.12.43		Calendar year 1944	
	Final Allocation	Achievement	Final Allocation	Achievement
Navy	350	336	58	61
Army	507	524	217	244
R.A.F.	303	301	49	49
Nursing Services	—	—	5	5
Total services	1,160	1,161	331	359
Civil Defence Services	—90	—87	—50	—83
Admiralty (Production)	111	104	—68	—68
Ministry of Supply	—165	—186	—170	—138
M.A.P.	259	307	—198	—297
Other Group I	—	—	13	94
Total Group I	205	225	—423	—409
Group II	163	128	82 ¹	30
Group III				
Expanding items			31	—70
Contracting items			—102 ¹	
Decline in industrial population	—	—	—175	—215

The achievements in meeting the allocations of the budgets are set down in the above table. This shows that right through to the end of the war the Ministry of Labour earned its reputation for finding, like clockwork, the authorised intakes for the Services. It is also clear that in spite of the difficulties such as those over aircraft production described earlier in this chapter, the Ministry did more than was required of it in building the munitions industries up to their peak. The most troublesome gaps between allocation and achievement were those in the Group II and Group III industries. In these groups, government departments did not let contracts; in consequence, they had neither the same information about the industries nor the same control over them. These industries had to take more or less their own course in adjusting themselves to estimated levels, with little assistance from official directions to workers, or from high wages. Moreover, the Group II industries and the expanding items in Group III were

¹ These figures are slightly different from those in the table on p. 451. In the present table the food, drink and tobacco industries are included in Group III; in the earlier table these industries were included in Group II.

expected to increase largely as a result of the planned reductions in the labour force of the munitions industries. In the event, the process of securing cuts in armament production, at points where the released workers would be most useful to other programmes, proved extraordinarily difficult.¹

After all these qualifications have been made it remains true that the achievements in fulfilling the manpower budgets were very high. It is as well to relate the achievements to Table 2 (b) on p. 351 and to see the changes wrought in the distribution of the total labour force. The armed forces continued to rise until after the great attack in Europe had been made. The munitions industries, on the other hand, passed their peak sometime in 1943. Group II industries reached their lowest point in 1943 and then showed a small rise. The fall in the Group III industries taken as a whole was never arrested. Some of the important industries in this group fell very low indeed; the building and civil engineering industries were reduced to forty-two per cent of their pre-war strength and textiles to fifty-six per cent. The great war-time growth of the numbers of men in the Forces and munitions industries had been fed mainly by a very large reduction in the Group III industries, aided by a large fall in unemployment and a smaller recruitment from the non-industrial sector. The increase in the numbers of women in the Forces, munitions industries and Group II industries (in the latter they went far towards replacing the losses of men) came from a very large recruitment from the non-industrial sector, some reduction in unemployment and a small fall in the Group III industries.

The figures for the increase in the number of women at work understate the number of women who were mobilised; for two part-timers are counted as one worker. In 1943, there were about 750,000 part-time women and in 1944, 900,000. In addition there were about a million men and women aged sixty-five and over in paid employment and at least a million women of all ages giving voluntary unpaid service.² Nor must the increase in the hours of work be forgotten.³ Outside all these figures, there was an immeasurable amount of spare-time war work. The Home Guard took over duties formerly performed by the Army. Civil Defence could be pruned because there were so many spare-time workers, and fire-watching was almost wholly done in out-of-work hours. In addition, some people spent

¹ The difficulties of adjusting cuts in manpower to supply requirements are dealt with in *British War Production*, pp. 224-227.

² Mostly on a part-time basis.

³ In the United Kingdom average weekly hours in the engineering and allied industries in 1938 were 48 for men and 44.2 for women. In mid-1943 the figures were 54.1 for men and 46.9 for women. With the increased proportion of women wage-earners this meant an increase in hours per wage-earner per week of about nine per cent. (*The Impact of the War on Civilian Consumption*.)

odd evenings at factories and others spent their holidays at harvest camps.¹

Great Britain had achieved the highest possible mobilisation. And the labour force had been redistributed pretty well in accordance with the pattern of the manpower budgets. How had this been done? It happened in part because the budgets themselves produced their own administrative consequences. From 1942 onwards, the labour entitlements set forth in the manpower budgets were invariably very much smaller than the original demands. When the budgets were settled, the departments concerned had to embark on some hasty revision of programmes. The War Office, for example, with its timetable of reduced Army intakes in mind, would have to consider where cuts must fall; if the Army's 'tail' could not take the main weight of the reduction, a revised order of battle might be necessary. The Army's requirements from the Ministry of Supply would also be changed. The Ministry of Supply in turn would have to reconcile these requirements with its own allocation of labour within the munitions industries. The programme changes of all the supply departments had to be considered with the Joint War Production Staff and, finally, contracts would be modified and firms would change the labour demands they had notified to their local employment exchanges. This process was lengthy. Sometimes several months of the budgeting period had passed before departments had revised their plans to match their allowances of manpower.² Sometimes, too, as has been seen, new demands made it impossible for supply departments to give up all the labour required of them.³ In general, however, manpower budgeting greatly strengthened the Ministry of Labour's control over the increasingly insatiable departmental demands for manpower. The Ministry could say firmly that it would give no priority to manpower demands that had not been blessed by the War Cabinet with an allocation.⁴

¹ For a comparison of mobilisation in the United Kingdom and the United States see pp. 370-372 above. It is of some interest to compare the peak mobilisation of 1943 with that of 1918. In 1943, in very rough terms, about a third of the British population of working age was in the Forces, Civil Defence and the munitions industries compared with twenty-eight per cent. in 1918; about sixteen per cent. was in Group II industries compared with thirteen per cent. in 1918, about fifty-two per cent. was in Group III and in the non-industrial sector compared with fifty-nine per cent. Greater mechanisation of the armed forces in 1943 meant that a smaller proportion of men aged fourteen to sixty-four was in the Forces and Civil Defence than in 1918—twenty-nine per cent. against thirty-four per cent. Women had been brought directly into the war effort to a far greater extent. Over fifteen per cent. of those between fourteen and fifty-nine were in the Services, Civil Defence and munitions in 1943 compared with seven per cent. in 1918.

² Especially when, as in the period July 1942-December 1943, the period covered by the budget was well under way before the budget was completed.

³ See p. 451 above.

⁴ This was a powerful stimulus to departments sponsoring Group II and Group III industries to make sure they asked for an allocation for every industry, however small, that needed an increase in labour.

Once the programme changes had been made, the main responsibility for fulfilling the manpower budgets lay with the Ministry of Labour. The main weapons of labour supply policy had all been forged by the end of 1941; thereafter, the Ministry had to refine the policies, adjust them to the changing needs of the war and administer them vigorously. Systematic manpower budgeting helped the Ministry by giving it a programme on which to base all its plans for supplying the right amounts of labour in the right places. The main plans were drawn up at the Ministry's headquarters and were then embodied in a great volume of instructions to the regional and local offices.

We have already seen that the Ministry of Labour fulfilled its obligations to the Services no less handsomely in the last three years of war, when new sources of fit young recruits were difficult to find, than in the first years of plentiful manpower supply. The supplies of men for the Services were in general still governed by policies approved before the end of 1941. In December 1941, it will be remembered, the principle of individual deferment had superseded the Schedule of Reserved Occupations. The Ministry of Labour could only meet the Services' big allocation by constantly combing-out deferred men from munitions and civil industries. The releases from particular industries did not always go according to plan. The building industry was still a problem; programmes for big releases of fit men from it were approved at the end of 1941,¹ modified during 1942 while the 'Bolero' plans were in the air, approved once more at the end of 1942 but then reduced again late in 1943 as urgent building work multiplied.² But shortfalls in the release of men for the Services from some industries were compensated by releases above expectations from others. The other source of intakes for the Services was of course the young men reaching call-up age month by month. This supply was increased by lowering the call-up age from 18½ to 18.³

The continuous comb-out to find men for the Services might disturb hard-pressed employers, but it was not in itself a complicated administrative process. It was far more difficult to find replacements for these men. Here, indeed, the problem merged with that of finding labour for munitions and other essential industries. This in turn merged with the problem of the further mobilisation of women. For the mobilisation of men had passed its peak before Pearl Harbour. Remaining reserves of men such as those discharged from the Forces, older men in unessential industries, Irish labour, and prisoners of war had to be used to the utmost; but for the most part it was only by finding women to take men's places in a wide range of activities, that

¹ See above, Chapter XI, Section (ii).

² e.g. more 'Bolero' demands, airfield construction, 'mulberry' harbours.

³ This required legislation and was embodied in the National Service Act of 17th December 1942, which reduced the age of registration to seventeen years eight months.

men could be freed for the Services or for the heavy physical work they alone could perform. These demands for women to replace men did not appear in the figures of the manpower budgets. They were additional to the 'net' increases of women in essential industries and the women's Services, authorised in those budgets.

The demands for women were, then, immense. But these demands, viewed simply as a total, considerably understate the administrative complexities of finding the supplies. For while women were spread fairly evenly over the country, the demands for them were not. For example, of the munitions industries' demands for labour in the twelve months ending June 1943, fifty-five per cent. were in three regions—the Midland region, the North Western, and the London and South Eastern; only three per cent. of the demands were in Wales. When the Ministry of Aircraft Production requirements were the focal point of discussion in mid-1943, over sixty per cent. of their demands for the last half of 1943 proved to be in the same three heavily laden regions. Other important demands were also concentrated there; cotton spinners, for example, were needed in Lancashire. In the latter part of the war, the local resources of men and women in these regions had already been exhausted and big new demands were extraordinarily difficult to meet. On the other hand, Wales, Scotland and the Northern Region still had plentiful supplies of women. Industry's outstanding need therefore was for mobile women, the very women that the Services also needed.

The supply of mobile women was limited. The limits were in part set by definition; for women with husbands in the Services and the merchant navy and married women with household responsibilities were always counted immobile. Moreover, the great majority of mobile women were already in some job or other. The Ministry of Labour's emphasis in registering women for employment was increasingly placed upon mobility and not simply, as in 1941, on identifying those women who were available for transfer to war work. It was also necessary for the Ministry of Labour to harden its heart. From 1942 onwards, the machinery for interviews and transfers was speeded up by giving women less time to make up their minds than they had had in 1941. Scrupulous courtesy was still urged upon the local exchanges but this was not thought incompatible with the 'absolute firmness of decisions and promptness in giving effect to them', that now became the order of the day. Definitions of exemptions were narrowed and personal problems were scrutinised more sternly if not less sympathetically. The new sternness extended not only to the women but also to their employers, whose objections had often produced delays and failure in transfer policy in the past.

These methods helped to find mobile women. But it would have been impossible to find enough without freeing mobile women from

their existing jobs in easy labour areas by replacing them with immobile women. In congested areas, of course, immobile women were themselves needed for war work. Again we see the different parts of the labour supply problem merging with one another and again we must emphasise how complex were the movements between jobs that were needed to achieve the net figures of the manpower budgets. In order to produce mobile women it was necessary to increase the total numbers of women in employment.

This meant that the net of the Registration of Employment Order must be stretched wider. By October 1942 it had been spread upwards to catch the 45½-year-old women and down to catch the 18½-year-olds. At these limits, the yield of mobile women was very small; girls under nineteen could not be transferred away from home and the percentage of mobile women among the over-forties was—not surprisingly—as low as three per cent. But the registrations produced immobile women. While more women up and down the age-scale were called upon to register, the ‘household responsibilities’ that might exempt them from work were more narrowly defined. From the spring of 1942, only women living in their own homes (or in rooms where neither board nor service were provided) and looking after at least one other person came within the definition. Of these women, those with children living at home were still left alone, although sometimes local appeals were made to them to consider seriously whether they could undertake some part-time work. All other women coming within the ‘household responsibilities’ definition were interviewed and classified into those available for full-time work, those available for part-time work, and those not available for any work. Those available for full-time work were placed locally and if necessary directions were issued; but until May 1943 no compulsion was used for part-time workers.¹ The main obstacle was that the part-timers were mostly needed as substitutes in industries not covered by the Essential Work Orders; the Ministry of Labour had always been reluctant to direct people to firms where the mutual obligations imposed by those Orders did not exist. In May 1943, however, these objections to the direction of part-timers were removed by a new Order² which gave some equivalent security to men and women directed to firms outside the Essential Work Order.

By the summer of 1943, the processes of registration and interview had gathered up most of the women in the non-industrial population who were available for work. Then, however, the urgent needs of

¹ The employment of part-time women involved of course a host of problems for factories, the Ministry of Labour and the women themselves. Much organisation was needed.

² Control of Employment (Directed Persons) Order April 1943 (S.R. & O. 1943, No. 651).

aircraft production compelled a last squeeze. Even the small supplies of women to be obtained by stretching registration until it included the fifty-year-olds could not be despised.¹ Here indeed, the Government seemed to be going further than public opinion in mobilising women. Although earlier on, it had wavered about military conscription of women, the War Cabinet agreed readily to this last effort of industrial conscription. But in Parliament and sections of the press, where military conscription had been gladly accepted, there was a widespread feeling that it was too much to call up grandmothers for employment.

Registration for employment was the main method of bringing more and more women within the control of the Ministry of Labour. Further measures were necessary to make that control complete by making the exchanges aware of all movements between jobs. This was done through orders which required employers to engage all women between eighteen and forty through the exchanges, and to inform the local exchanges when any of their workers gave or were given notice to leave.² Movements were also checked by reviews of the register. The review of November 1942 was particularly important for it covered the twenty to thirty-year-olds, many of whom had registered when transfer policy was less severe.

It was largely the enlistment of married women into employment during 1942 and 1943 that made the peak of British mobilisation so very high. The other main source to which the manpower budgets looked in those years was a decrease in the labour force of less essential industries. As we saw, these industries had to be defined with increasing care.³ Until well into 1941, the Board of Trade had accelerated the Ministry of Labour's activities in withdrawing labour from civilian industries. But contraction in some cases went too far and more discrimination was needed. By the end of 1943, many civilian industries, such as textiles, paper, furniture and laundries, had good claims to an increase of labour. On the other hand, the Board of Trade agreed that the really unessential industries could be squeezed to any extent the Ministry of Labour wished; if necessary, they might be wiped out.

The industries that could still yield labour were dealt with by a variety of direct and indirect methods. At the end of 1942, the possibility of extending concentration was discussed. But retail trade and some of the concentrated industries such as clothing, hats and caps and paint contained a high proportion of small firms; this made the

¹ Not more than 20,000 were expected from this source.

² Employment of Women (Control of Engagement) Orders (Consolidating Order January 1943, S.R. & O. 1943, No. 142). Control of Employment (Notice of Termination of Employment) Order, August 1943 (S.R. & O. 1943, No. 1173).

³ See p. 444 above.

task administratively difficult and politically untouchable. The making-up section of the clothing industry was concentrated at this late hour, but the scheme was a failure as a method of labour withdrawal. In practice, the orderly release of labour from less essential industries meant that the Ministry of Labour had to prepare, in consultation with the government department concerned and with the individual industries, a whole series of separate schemes and administrative devices. Some industries, especially the unconcentrated ones with large numbers of small firms, had no orderly schemes and were left to struggle along with such elderly immobile workers as the Ministry of Labour and the march of time left them. The lack of replacements for ordinary industrial wastage was probably as important as actual labour withdrawals in decreasing the labour force of the less essential industries.

Direct labour withdrawals were aided by indirect methods of cutting demands for labour. New methods of controlling the manufacture and supply of civilian goods¹ ensured that only essential articles were produced except in special cases where the Ministry of Labour had no use for a firm's labour. Some of the austerity measures—those for example which forbade decorations on dress or on pottery—were introduced primarily to save labour. In addition, some of the utility schemes not only safeguarded price control and quality but also increased productivity by standardisation.

By a combination of all these methods, the less essential industries went on losing labour until during 1944 they were somewhere near rock bottom; it proved impossible to release the numbers hoped for in the manpower budget for that year. Indeed, when mobile women were needed for high priority work at the end of 1943, the only way of obtaining them was to withdraw them without prior substitution from a wide range of reserved or protected work, including simple repetitive work in the munitions industries.

The first aim of all these labour supply policies in the late years of the war was the release of young women for the Services and industry. How were the women distributed between these two demands? The women's Services were always recruited mainly from volunteers; the volunteering was reinforced by the National Service Act of 1941.² But this Act only caught single women; its scope was further restricted because large numbers of single women had already been directed to vital war work and must be kept there. Women called up under the National Service Act could express an option for the Services, for certain essential industry, or at first, for Civil Defence. In practice, one-third of the women called up opted for the Services, one-third for industry and the rest expressed no preference. The scheme was

¹ See below, Chapter XVII.

² See p. 314 above.

flexible and, as long as the needs of the Services were the most pressing, those who expressed no preference were called up into the auxiliary Navy, Army or Air Force. In order to meet the Services' requirements, it was necessary to extend the call-up from the 1920 and 1921 age groups to the 1919's and the 1918's, to take a firmer line about the withdrawal of all these classes from their employment and to encourage volunteering among other classes, even among women in reserved work. In the autumn of 1942 it was contemplated that the call-up would have to be extended to cover ages down to nineteen and up to thirty.

In the end, however, the nineteen-year-olds were called up but none of the older age-groups; for, by 1943, the needs of the munitions industries for mobile women had become greater than those of the women's Services. In the summer of 1943, the top labour priority was aircraft production, and the urgent problem was to divert every available woman into it. This meant keeping them out of the women's Services. The Minister of Labour was most reluctant to alter the policy accepted by Parliament by directing into industry women who had opted for the Services when they registered for National Service. Such women became the sole source of recruitment for the Services. Volunteering was stopped and no more age classes were conscripted under the National Service Act.¹ In 1944 a small additional intake was allowed to the women's forces by opening volunteering to girls of 17½ to 19, i.e. below the 'mobile' age.

The demands of the munitions industries had become supreme, and the chief demand was for mobile women for transfer to areas where a grave labour shortage persisted. The machinery for such transfers had been built up during 1942, on a 'coloured area' scheme.² Each Ministry of Labour local office area was classified into one of four groups—scarlet areas whose needs could only be met by imports from beyond daily travelling distance, red areas in which all available labour was required to meet existing demands, amber areas with neither considerable deficiencies nor surpluses and green areas which had surplus labour available. A region might contain within itself areas of each colour; but there were regions which could be definitely marked as supply or demand regions. In order to allocate mobile women fairly, demand regions were linked with supply regions—the north-west, for example with the north and north-east regions, the south-west with the south. In supply regions all mobile women not needed for first priority vacancies³ in their own scarlet areas, were to be exported for such vacancies in the corresponding demand regions; the supply regions were expected to

¹ H. of C. Deb., Vol. 391, Col. 1797 (29th July 1943). Statement by Minister of Labour.

² This was a modification of the scheme launched at the time of concentration.

³ i.e. headquarters preference vacancies. See p. 303 and p. 463.

fill all their other vacancies with immobile women. In July 1942, the screw was twisted further—to alleviate the desperate straits of the scarlet areas, mobile women in green and amber areas had to be taken from their jobs, even from vital war work. This policy was inevitably difficult to operate, especially in Wales and Scotland,¹ where the removal of the mothers of the future generation caused strong nationalist resentment.

Moving workers, and in particular women, to the work was one way of meeting the munitions industries' needs in scarlet labour areas. A simultaneous approach from another direction was also necessary; work had to be placed with more respect for the availability of workers. It was much too late to alter radically the faulty distribution of munitions work; any measures from 1942 onwards could not hope to do more than prevent the position from growing worse. Soon after the Minister of Production took office in 1942, he established a Location of Industry Committee to assist in regulating the location of war work. One of the first jobs of the Committee was to draw up a list of over-congested towns and districts,² known as 'designated areas'; no additional production load involving an increase of more than twenty-five workers could be placed in them unless equivalent labour relief was obtained in the area or the Ministry of Production gave specific approval. Modification of the rules meant that the equivalent labour reliefs were not always provided; in 1944, when a serious deficiency in the supply of labour in the designated areas threatened to jeopardise vital production, the needs of this work had to be met by a levy on all the other labour employed in the areas.³ In 1942, the Location of Industry Committee had also tried to get production, both munitions and civilian, actually shifted from the congested to the easy labour areas. The Board of Trade, for example, undertook to reconcentrate industries in order to produce geographical shifts and to make such shifts the basis of any new concentration schemes. But the possibilities were limited; only munitions and civilian production with very light machinery could be moved, while local passions broke in a storm round the Board of Trade's head when they suggested, for example, that the hat trade should be moved from Luton. The other main occasion for redistributing the production load arose when the Ministry of Supply began to reduce its labour force; the emphasis was increasingly upon the release of labour in the areas where it was needed by the Ministry of Aircraft Production rather than upon convenience and economy as envisaged by the Ministry of Supply.

¹ See e.g. H. of C. Deb., Vol. 379, Cols. 1628-9; Vol. 382, Cols. 141, 660, 1160; Vol. 386, Col. 757.

² The first list of areas was Coventry, Corsham, Stroud Valley, Leicester, Preston, Kidderminster, Luton and Dunstable. The list was continuously modified.

³ A few essential industries were exempt.

Producing total supplies to meet total demands and manipulating regional supplies to meet regional demands constituted an extraordinarily intricate task. At any moment in any area supplies and demands rarely balanced. Some procedure was therefore required to settle the order in which vacancies should be filled. A previous chapter has told of the establishment of the inter-departmental Preference Sub-Committee. This Committee continued to draw up lists of vacancies in vital industries or services which must have first claim on labour supplies. These were the headquarter preference vacancies, and in addition some regions operated a system of second or regional preferences. Lists of preference vacancies tended to become very long, and when in the summer of 1943 the War Cabinet accorded aircraft production overriding priority, the system had to be changed. The interpretation of overriding priority that the Ministry of Labour at first passed to its Regional Controllers was very literal, and the results were as anomalous as those of all the earlier war-time attempts at super-priorities. After strong complaints, a new scheme was agreed. It was the Ministry of Production's responsibility to draw up a list of vital products which ranked with those parts of the aircraft programme certified by the Ministry of Aircraft Production as important. When aircraft production lost its overriding priority in January 1944, the Ministry of Aircraft Production had to apply for inclusion in the list like any other department. This exclusive list of designated products was translated by the headquarters preference committee into vacancies in individual firms, and these alone were granted first preference. From January 1944, common national standards were laid down for the granting of regional or second preferences.

Regional problems perhaps loomed largest in supplying the authorised labour increases in industry. Some industries however had their own particular difficulties in combating the effects of excessive decreases. The worst troubles arose in the industries that had to be rebuilt after they had contracted too far; they were often badly paid and unattractive and unskilled women were quite useless to them. Coal-mining was the outstanding example and required extreme measures. Only former coal-miners or fit young men were of use to the industry. By the summer of 1943, the return of former coal-miners from industry and the Forces had reached its practical limits; but the needs of the coal-mines were far from being satisfied. All men called up for military service were given the option of going into the mines and a publicity campaign tried to attract volunteers from any existing job except aircraft production. There was little surprise when volunteering did not yield adequate results and in November 1943, the War Cabinet agreed that some men between eighteen and twenty-five who would otherwise go into the Services should be called up for the

coal-mines. The selection of the men, hereafter known as the 'Bevin boys', was to be by ballot.

It is clear that to implement the manpower budgets, millions of men and women had to be shifted between jobs and between districts. To have achieved so nearly the great redistributions planned in the manpower budgets, with their swift changes of emphasis to match the strategy of war, was in itself a triumph. To have achieved them in an orderly fashion without great public storms and legacies of bitterness, was even more remarkable. The general post was accompanied by a due quota of administrative mistakes, vociferous complaints and inter-departmental haggling, but in general it went smoothly and received the overwhelming consent of the nation.

Most important in enlisting this consent was the constant insistence upon welfare inside and outside the factories and upon industrial morale. This emphasis smoothed the movements of the population. It also helped to reduce absenteeism and wastage and to maintain productivity at a time when the exhaustion of labour reserves made this increasingly important, and growing monotony and war strain made it increasingly difficult. By 1942 and 1943, the war seemed to stretch interminably over past and future. Long hours of work in factories were followed by Home Guard duties or firewatching, by shopping and cooking under war-time limitations: streets were dark and homes lonely. In such a soil, illness, absenteeism and discontent might well have flourished. Absenteeism and industrial disputes were, indeed, prominent in the news from time to time, but analyses of the figures rebutted the exaggerated assertions of ill-informed critics. Only in March and April 1944, in the jumpy days before D-Day, did industrial unrest threaten to become serious, but it faded once D-Day became imminent and then arrived. Nevertheless, continuous efforts and a wide range of methods were necessary to reduce absenteeism and discontent.

As labour became more and more scarce, the supply departments shared the enthusiasm of the Ministry of Labour for welfare services and for the efficient use of labour.¹ Inside the factories, there was constant insistence upon compliance with the Factory Acts and with war-time legislation—upon adequate ventilation and lighting in spite of blackout difficulties, upon sanitary facilities when overcrowding of the factories was straining them, upon canteens and upon safety measures. There were other non-statutory facilities to be encouraged such as shopping arrangements, music during work time, barbers' visits. Outside the factories, the chief problems to be solved were housing and billeting, transport, travel facilities for transferred workers and the care of small children. Welfare provision was not, by

¹ M.A.P. had lagged behind but in August 1942 it created a department specifically dealing with these problems, and in December 1942, a Production Efficiency Board.

itself, enough. When the composition of factory populations was changing so curiously and so rapidly, 'personnel management'—an unlovely name—equalled in importance technical and works management. Staff had to be trained to do this job. Moreover, psychological obstacles tending to keep productivity low had to be overcome—for example, by encouraging co-operation between management and workers and by emphasising the importance of work for war weapons through photographs, target charts, visits by soldiers, sailors and airmen. The quantitative results of all these efforts cannot be measured. It would be a mistake to ascribe to them greater significance in the struggle for production than the solution of technical difficulties or the steady flow of materials. Nevertheless, their importance in a war which grew long and weary was unquestioned.

A comparison of British mobilisation with that of other countries has been made in an earlier chapter. It should be remembered that the reserves of Britain's manpower lay primarily among the housewives and the men and women in numberless civilian industries. To drain and use those reserves and to thrust them into war-making occupations presented formidable administrative difficulties and imposed upon the population a strain heavier than the other English-speaking Allies had to endure. Not only was the strain more severe in Britain; it also lasted longer. But the Government mastered the difficulties and the people took the strain.

CHAPTER XVI

COAL AND TRANSPORT

(i)

Introductory

THE main economic effort of war is to concentrate as many resources as possible upon direct war purposes—in brief, to build up large fighting services, to train them and to furnish them with the best equipment that industry can produce. As Adam Smith was aware two centuries ago, this economic effort of war necessitates, in all save the most primitive societies, a division of labour in which the armed forces become increasingly little more than the cutting edge of a ponderous and intricate national machine. The munitions industries are manned by civilians and neither they nor the armed forces themselves can be maintained without the labour of other civilians who run the transport or hew the coal or labour in fields or offices, surgeries or shops.

Under these circumstances, the dividing line between the conventionally named 'war' and 'civilian' sectors of economic life is bound to be blurred. Attempts, even in retrospect, to measure the allocation of resources between the two sectors, by use of national income, manpower and other statistics, can hardly achieve a completely convincing exactness. The authorities whose war-time duty it is to determine the allocation of resources do not possess instruments of scientific precision which would guarantee a perfect balance. It is plain to them that they must cut to the minimum the demands of consumer industries for materials, workers and plant; but where this minimum lies is not at all plain. If it is pressed too low, the efficiency of the nation and its morale will be impaired.

There are certain basic industries which serve both the immediate war effort and the day to day activities of ordinary life. If the task of these industries is wrongly measured or inadequately performed, the nation's economic effort will fail. Lack of coal, or the inability to transport goods across the country will constrict the war effort no less surely than a shortage of raw materials or skilled men. For the United Kingdom, agriculture must rank with coal and transport; if the farmers were to fail in their war-time task, the country could escape starvation only at the cost of restricting its imports of raw materials or curtailing its military activities.

Nevertheless, the British Government during the Second World War was unable to consider these basic industries sacrosanct. They employed large numbers of men of military age who possessed the strength or the special skills for which the Services and the munitions industries clamoured. Most of them, moreover, normally consumed great quantities of steel. It was essential that they should be made to contribute to immediate war purposes all the strength they could spare. However, it was extremely difficult to judge in advance the sacrifices that should be demanded of them and the precise point where these sacrifices would endanger, rather than help the war effort. Much depended upon the duration of the war. It might, for example, be safe to reduce drastically the repair and renewal of capital equipment for three years, but dangerous to prolong this under-maintenance for six years. Or again, the release of men for direct war work might be manageable in the shorter period, but dangerous if natural wastage from an industry exceeded new intake for four or five or six years. But who could really say when the war would end?

At the beginning of the war, the Government did not in any case consider these matters very deeply. Production of generating plant, for example, or of railway rolling stock, competed immediately and directly with munitions work and was greatly reduced without any clear calculation of the consequences. Then in the summer of 1940, coal-miners were allowed to go freely into the Forces or the munitions industries. When, in the later years of the war, the mounting war effort put a heavy strain on the fuel and power and transport industries, they had to sustain it with a less efficient labour force and less efficient capital equipment. And in these later years, the manpower famine made it difficult to help these industries by transferring resources back to them.

Some of the most difficult economic problems in the last period of the war—not to mention the peace—were those of basic industries. This chapter cannot concern itself with all these industries. It will concentrate on coal and transport.

(ii)

Coal¹

Coal was an especially difficult problem. Throughout the later years of the war the Government constantly feared that coal supplies might be inadequate to support the war effort. This persistent and intense anxiety over coal did not begin until 1942. But to understand

¹ See *Coal*.

the debates and policies of that year it is necessary to link them with earlier policies and events.

Before the war, the long years of depression in the coal-fields had made the possibility of a coal shortage appear almost unthinkable. Even so, the Government's pre-war coal plans laid down a stiff task for the industry. They estimated that an output of coal some ten per cent. above the best annual level of the nineteen-thirties would be necessary to meet essential home demands and an export programme which included heavy French requirements. Such an output would be achieved only if certain rather optimistic assumptions about manpower and machinery supplies were fulfilled. Even then, there would still be need to curtail home demands for coal by instituting domestic rationing and by settling suitable priorities among the major coal users. It was assumed that the Government's main care would be to supervise the fair distribution of coal and to exercise some control over supplies, prices, home consumption and exports. Fear of raising the political issue of nationalisation of the mines, together with the existence (since the Act of 1930) of a statutory cartel, seemed to counsel as indirect a form of control as possible.

After the outbreak of war, production kept steady; but it did not increase. Nevertheless, in the first three or four months of war, the coal situation was surprisingly favourable. The big consumers at home had built up exceptionally high stocks against air raid damage which did not occur. The shipping shortage curtailed the huge export programme. Neither British nor French war production expanded as quickly as had been expected. Domestic rationing, therefore, proved unnecessary. It is true that there occurred in the new year of 1940 a severe crisis in coal supplies—gas and electricity works in the south were down to two weeks' supply and many households were completely without coal. But this was due not to inadequate production but to the transport difficulties caused by prolonged severe weather.¹

The spring of 1940 brought the coal production question once more to the fore. The war industries were gathering momentum and their demands for coal were increasing. The Mines Department was anxious to fulfil a large stockbuilding programme to avoid the troubles of the first war winter. Meanwhile, shipping difficulties were being overcome so that the urgent French need for coal became an effective demand upon the British coal-fields.

All these demands could not be met from current production. A Coal Production Council was established to deal with the long-term problem of increasing production. In the short term, part of the British stockbuilding programme was sacrificed to meet French needs. But this hard decision was only a month old when France

¹ See p. 272 above.

collapsed, and with her, the coal production problem. A ten per cent. increase in British production was no longer wanted; instead, demand was now expected to be no more than 215 million tons a year, or ten per cent. *less* than current production. Even feverish stockbuilding at home in the summer of 1940 could not prevent unemployment in the coal-fields of South Wales and the north-east.

The winter of 1940-41 brought another crisis in the distribution of coal supplies; as before, it was due mainly to transport congestion. As soon as the winter was over, the Government began to study measures to avoid renewed distribution troubles in the following winter. The chief need was to make coal consumption in the third winter of the war much less dependent than before on current supply; the chief means was to carry out an even larger summer stockbuilding programme. By June 1941, however, this programme was in peril, partly because consumption in the late spring and early summer was unusually high, but mainly because of a disappointing rate of coal production. An incredulous people, accustomed to think of an abundance of coal, of too few markets and too many miners, heard in the middle of 1941 that they were threatened with a serious coal shortage.¹ Actually, during the last part of 1941, the outlook improved; stocks were increased above the 1940 level and production rose. But in the new year of 1942 production rapidly worsened and by April it was positively alarming.

What exactly had been happening to coal production? The outline of the position in the war years is shown in the Table on page 479. Average weekly production had fallen from 4,363,000 tons in the middle of 1939 to 3,918,000 tons at the beginning of 1942. One of the main reasons for this fall was the decline in the industry's manpower. The origins of this decline can be traced predominantly to the crisis months of 1940. Although the outbreak of war had inevitably taken men from the pits, most of them had been replaced by newcomers. At the time of the fall of France, the net reduction in numbers amounted only to about 9,000. During the production drive of previous months there had been talk of increasing the labour force; but suddenly the Government found itself faced instead with the problem of absorbing the miners who were unemployed because of the disappearance of the French demands. The Secretary for Mines himself was most anxious to keep the labour force of the mines together. The Mines Department made an attempt to transfer unemployed miners to other coal-fields; but the attempt failed. Meanwhile, although there was no general labour shortage, the Army and the munitions industries both needed strong, able-bodied men and the miners themselves felt strongly that, if they were unemployed, they must be allowed to

¹ H. of C. Deb., Vol. 371, Cols. 1879-1888 (28th May 1941).

leave the industry. For all these reasons, the age of reservation from military service for miners was raised in the autumn of 1940 from eighteen to thirty. In retrospect, some of the most serious coal difficulties in the later war years can be traced to this decision.

The decision was in fact taken without any serious calculation of the coal requirements of a war economy working at full capacity or of the effects upon production of prolonged war conditions. If the calculations had been made, the Government might have tried to keep the miners who were called up in situations where they could be recalled to the mines if they were wanted; as it was, many of them went irrevocably into the field force. But in 1940 nobody knew how long the war would last and everybody was preoccupied with the problems of survival in the face of threatening invasion. Even the wisest economic planner could hardly have gone against public feeling to the extent of preventing miners who wanted to fight from joining the armed forces. Meanwhile, on top of these losses to war industry and the Forces, the mining industry was beginning to suffer an increasingly heavy natural wastage. For some time the labour force had been ageing and recruitment of juveniles falling off. All these causes together brought the number of wage-earners down from 773,000 in the middle of 1939 to 707,000 at the beginning of 1942.¹

The decline in manpower was not the only cause of shrinking production. While manpower had fallen by nine per cent., production had fallen by twelve per cent. Output per man employed had dropped. Not until the end of 1942 did statistical analysis banish some of the misconceptions about the causes of this fall. There was, for example, much discussion about absenteeism. But until the end of 1942, the distinction drawn in the official figures between voluntary and involuntary absenteeism was very arbitrary. In fact, as the Table shows, the average number of shifts actually worked had risen steadily. The causes of the fall in output per man were, it seems, two-fold. First, there was a decline in the proportion of miners actually at the coal-face to other mineworkers. This proportion inevitably fell as the total manpower in the mines was reduced, for unless all the vital overhead services—haulage, winding, maintenance and repair—went on, no coal at all could be mined. Of the total shifts worked in the mining industry, the percentage worked at the face fell from just over thirty-eight per cent. in 1938 to less than thirty-six per cent. in 1941; during that period this drop bore the major responsibility for lower output per man. About the middle of 1941, however, the increase in manpower and a policy of upgrading sent the percentage of face shifts up again. From that time onwards unsatisfactory output

¹ In 1941, the reduction had been even larger, but the application of the Essential Work Order to the industry and schemes, put into effect in 1941, to bring miners back from other industries, had sent the numbers up again.

was due increasingly to a new cause. In the first two years of war, output per manshift at the face had been steady; but in the autumn of 1941 it began a serious descent. The causes of this decline in output per manshift at the face were partly physical—an ageing labour force was feeling the strain of working $5\frac{1}{2}$ shifts or more a week—and partly due to a smouldering discontent over wages, the working of the Essential Work Order in relation to absenteeism and a whole range of problems of pit upkeep and organisation.¹

These then were the constituents of a coal problem that by the spring of 1942 was looking very threatening. Between November 1941 and March 1942, the average weekly output of coal had fallen by over 104,000 tons. It seemed indeed that the 1942-43 coal budget² would show a very dangerous deficit. Through the spring and early summer of 1942 ministers and the War Cabinet discussed ways and means of bringing the supply and demand sides of the budget into balance. An increase in the industry's manpower was urgently needed and it was decided to bring back miners from the Services and from important war industries; the War Cabinet could not agree, however, to robbing the field force. These measures would, it was hoped, secure an average labour force of 702,300 men which, provided output per man fell no further, would produce 205.3 million tons of coal. Demands for deep-mined coal however were 215 million tons. These might be reduced to 208.5 million tons by fuel economy in industry, by cutting stocks and exports and by expanding outcrop mining. But there would still remain a gap of 3.2 million tons, even with no allowance for contingencies. This gap could be bridged in three possible ways—by allocating coal to industry in the same way as other raw materials were allocated; by rationing domestic fuel; by reorganising the coal industry to increase production.

The intricate administrative problems of instituting an allocation system for coal cannot be examined here; but some account must be given of the discussions about domestic rationing and the reorganisation of the coal industry. Out of the proposals for the rationing of fuel to domestic consumers there blew one of the biggest storms of the war in the sphere of home politics. In the middle of 1941, when the first undertones of coal crisis were heard, maximum monthly deliveries of household coal to each consumer had been prescribed. Such a measure by itself was unfair and not particularly effective, for the households with gas and electricity could simply substitute them for solid fuel. And the restrictions did not even prevent consumption of household coal in the winter of 1941-42 from rising well above the level of the previous year. Meanwhile, the Mines Department had begun to prepare rationing schemes covering all forms of

¹ These causes are fully discussed in *Coal*.

² The 'coal year' ran from 1st May to the end of the following April.

fuel. In March 1942 a choice of these schemes lay before the Lord President's Committee. It was agreed that the most comprehensive one, which was calculated to save eight million tons of coal a year, should be prepared in detail forthwith. The work was put into the hands of Sir William Beveridge; it was completed by the middle of April and accepted and published as a government white paper.¹ The plan was to make all forms of fuel interchangeable on a points system and to have a household ration, based on the number of rooms in a house,² and a personal ration. At first, the public seem to have been resigned to the necessity for fuel rationing. The Government did not, however, follow the normal practice never to announce any new development of rationing in advance. This custom had been one of the main reasons why food and clothes rationing had worked so smoothly. But the intention to ration fuel was disclosed and debated in Parliament before the scheme was introduced. By the time the House of Commons debated the white paper in May, violent opposition had grown up.³ The many practical difficulties of the scheme were exhaustively discussed. Moreover, the scheme would have imposed particular hardships on those in larger houses; this was a strong contributory cause to the opposition to the scheme.

The War Cabinet was anxious to avoid a general cleavage of opinion over the issue and asked that the rationing problem should be re-examined. All the other schemes, however, were even less satisfactory, while to drop fuel rationing would involve grave risks for the coal budget. Nevertheless, the Lord President's Committee recommended that for the moment the Government should take these risks. For attention was now focused on the plans for reorganising the coal industry. These would surely, it was thought, send production upwards and goodwill for them might be more assured if no other controversial scheme was launched at the same time. Meanwhile, a big campaign for voluntary economy of domestic fuel and power was launched and administrative preparations were made in case rationing had to be introduced later.

Rationing was discussed again in the autumn of 1942 when it looked as if the deficit in the coal budget might be not three, but fifteen million tons. However, the newly created Minister of Fuel and Power thought that rationing was now out of the question because fears about coal production and transport services made it impossible to guarantee the rations. He therefore proposed to continue relying upon the restriction of coal deliveries and voluntary economy to

¹ *Fuel Rationing: Report by Sir W. Beveridge, K.C.B., to the President of the Board of Trade.* Cmd. 6352.

² In the houses with more than seven habitable rooms, the household ration would be based on the number of residents.

³ H. of C. Deb., Vol. 378, Debate of 17th March 1942; Vol. 379, Cols. 1450-1573.

reduce domestic consumption. Again there were criticisms that to restrict coal alone was fundamentally unsound and unfair. Again, various combinations of restrictions and rationing were considered. In the end, rationing was definitely set aside and the restrictions imposed on the use of gas and electricity were nominal.

The wisdom of these decisions was not, as it happened, seriously tested. The exceptionally mild winter of 1942-43 encouraged voluntary economy and at the end of it domestic fuel consumption proved to have been the equivalent of about six million tons of coal less than that of the previous year. If, however, a long and severe winter had hindered the production and transport of coal, uncontrolled and excessive domestic consumption of gas and electricity might well have contributed to a stocks crisis at the public utility works, which would have seriously damaged war production. Domestic consumption of coal certainly fell steeply after 1941; but domestic consumption of electricity and gas showed no signs of a real reduction even in spite of the mild winters of 1942-43 and 1943-44.¹ The risks that the Government decided to accept need to be underlined. In the first discussions about fuel rationing during the spring and early summer of 1942, these heavy risks were balanced against political expediency and against administrative complexities far greater than those of food- and clothes-rationing. By the autumn of the same year, another element of great weight entered the scales against rationing—the very real fear that, if a bad winter brought severe transport difficulties, fuel rationing would break down owing to inability to guarantee deliveries.² This consideration proved decisive. Rationing never again became a live issue during the war.

It was certainly important in 1942 to reduce consumption; but even more urgent was the need to increase production. The decisions to bring miners back from the Forces and industry have already been mentioned; they were an expedient that could hardly be used a second time. It was therefore necessary to devise measures of longer term to remedy the manpower shortage. Net wastage in the mining industry was now running at a rate of 28,000 men a year; since the numbers accounted for by death, disablement and natural retirement were roughly balanced by the intake of youths, the loss appeared to be chiefly due to an exodus of middle-aged men who left the industry on the strength of medical certificates. This exodus might

¹ Figures for the personal expenditure on fuel and light revalued at 1938 prices (latest Central Statistical Office estimates):

	1938	1939	1940	1941	1942	1943	1944	1945
Coal	108	106	109	108	101	91	84	78
Electricity	35	39	40	43	44	43	51	57
Gas	38	38	37	38	39	39	43	47
Other forms of fuel and light	16	16	16	16	15	14	15	16

² Had the Beveridge fuel rationing scheme been adopted, it would have been impossible to honour it in the last winter of the war, through transport difficulties.

in some degree be arrested;¹ meanwhile, on the proposal of the Lord President, a committee was set up to study means for maintaining and improving the recruitment of juvenile labour.² A falling labour force was not, however, the only problem; still more important was the decline in the productivity of labour. To diagnose this evil and to discover the remedies for it, the War Cabinet, acting again on the proposal of the Lord President, set up a special ministerial committee.

This committee put forward four groups of measures by which output could be increased. First, all collieries should secure the advice of the most competent mining engineers in their district; as things were, the standard of technical advice varied widely. Secondly, mechanisation should be extended. Thirdly, manpower should be concentrated in the most productive mines and seams. This appeared the most hopeful way of increasing output quickly; a sample taken in one district had shown that, by moving six per cent. of the miners an average distance of only four miles, output would be increased by 6½ per cent.; if conditions elsewhere were the same, total output would be increased by a quarter of a million tons a week—provided the strong reluctance of miners to change pits could be overcome. In the fourth place, additional measures might be devised to combat absenteeism. It was doubtful whether avoidable absenteeism was greater in the mines than in the munitions industries, but it must all the same be reduced to a minimum.

To obtain increased output by these various means it was felt that the Government must have operational control over the mines. There arose, inevitably, controversy over the extent of control. Should the mines be requisitioned—in effect nationalised—for the duration of the war? The case for nationalisation was argued on the grounds of its influence on the miners, rather than on its technical merits and, argued thus, it lost the day. It was decided that all the urgent measures that had been proposed could be executed through existing powers under the Defence Regulations. Interference with the financial ownership of the mines was thought unnecessary. But new administrative machinery was required.³ The Government's full powers of direction and control over the coal industry were delegated to strong regional controls acting under general guidance from headquarters. National and regional advisory bodies were also set up and the existing pit production committees were retained. At the same time, the old Mines Department gave place to a stronger authority, an

¹ There was no doubt that many of these men were fit to continue work in the mines; but they were anxious to leave because they lacked faith in the industry, or because they could earn more in munitions, or because they could not get adequate medical treatment.

² Committee on the Recruitment of Juveniles in the Coal-mining Industry (Forster Committee), *First Report*, July 1942.

³ The scheme adopted by the War Cabinet was explained in a white paper, *Coal*, Cmd. 6364.

independent Ministry of Fuel and Power, which, as its name implied, combined within itself responsibility for petroleum, electricity and gas, as well as for coal.

To judge by the balancing of the 1942-43 coal budget, the first year of the new control might seem remarkably successful. Instead of a big excess of consumption over production, stocks had actually risen by nearly $4\frac{1}{2}$ million tons. This was due in part to the economies in consumption that have already been mentioned. On the other side of the budget, production had risen $5\frac{1}{2}$ million tons above expectations. About a quarter of a million tons of this increase were due to the extension of outcrop mining. Another two million tons were due to the fact that the average labour force in the industry was about 10,000 men more than had been expected. Although in the past year still fewer juveniles had entered the industry, more than twice as many miners as had been allowed for had returned from the Forces or elsewhere, while a trickle of men had opted for the mines instead of military service. Moreover, a big extension of medical and rehabilitation work had reduced the rate of loss through accident and sickness. For all these reasons net wastage had fallen from a rate of 25,000 men a year to 19,500. Encouraging though this was, it was not the main factor in the improvement on production estimates for 1942-43. Increased productivity per manshift accounted for the remaining three million tons by which production exceeded the estimate. Output per over-all manshift¹ rose from 1.03 tons in the second quarter of 1942 to 1.06 tons at the end of the year, and the proportion of shifts worked at the coal-face also rose.

But, although production had risen above the estimates, the aggregate output was lower than in the previous year. There were two main reasons. First was the increasingly unsatisfactory number of shifts worked per mine-worker; from this time forward the problem of absenteeism—both avoidable and unavoidable—grew genuinely serious. Secondly, the progress of the reorganisation programme in the mines was disappointingly slow. Manufacturing difficulties both in Britain and the United States meant that the pace of mechanisation could barely hold its own, let alone increase. After the fall of France not only had miners left the industry; in addition, much plant hitherto used for making mine machinery had been turned over to munitions work. The reduction in the output of mining machinery had been so great that, in spite of the efforts of the government departments concerned, the normal progress of mechanisation in the mines was barely being restored in June 1943. Nor did concentration of production proceed very fast. A technical survey had first to be made of all the pits; this in itself was a lengthy process. Moreover, concentration proposals were invariably unpopular with collieries

¹ i.e. not just output per manshift at the face.

and miners alike. Only by a great deal of pressure had fifty schemes been achieved by the summer of 1943.

Many of the difficulties of reorganisation were unavoidable; but by the autumn of 1943 the Minister of Fuel and Power and his advisers concluded that the existing system of control over the mines was not helping as much as it might to solve them. However complete in theory the Government's operational control, in practice it had too little influence on the day to day management of the pits. This had been left in the hands of the mine managers; but, since the Government had not taken financial control, the position of managements remained ambiguous. The Minister concluded that complete operational control could only be achieved if the State became the owner of the mines and the employer of the managers—not permanently, but for the war period. Then there could be a continuous and expert supervision of production by the grouping of pits under technical experts whose sole responsibility would be to the regional controller. There would be also, it was hoped, important though subsidiary effects upon the temper of the miners. Merely to patch up the existing control would be a failure.

This case was strongly put, but not strongly enough to convince the War Cabinet of the necessity for so controversial a measure. The principle of the Coalition Government was 'everything for the war, whether controversial or not and nothing controversial that is not *bona fide* needed for the war'. Government ownership of the mines in war-time might predetermine the issue of nationalisation, and the Prime Minister maintained in Parliament that no case had been made out for nationalisation of the mines as a necessary step towards winning the war.¹ In the end, the control over the mines was left to be strengthened by the appointment of Group Production Directors, responsible to the Regional Controllers, who would ensure the execution of the Minister's policy in every pit in the group.

Whatever the differences in opinion about the administrative remedies, there was no doubt about the seriousness of coal production trends. The efforts of the Ministry of Fuel and Power to arrest the decline in production were unavailing. In 1943, the total production of saleable mined coal was nine million tons less than in 1942; in 1944 it was down by another ten million tons. Moreover, there was a more than proportionate decrease in the production of large coal and graded fuels which were needed by the railways and by important war industries such as iron and steel; the shortage of these special coals caused great difficulty.

¹ H. of C. Deb. Vol. 392: debates of 12th, 13th October 1943. The question of nationalisation, as distinct from temporary government ownership of the mines, was brought up in Parliament by the Labour M.P.s from the mining constituencies and not on the initiative of the Minister of Fuel and Power.

The causes of the general decline in production were, as usual, complex. Reference should be made again to the Table on p. 479 for the salient facts. In the first place, there was the movement in the total number of miners. Throughout 1943, in spite of some further return of miners from the Forces and some intake of volunteers, wastage remained high; in the last quarter of 1943, the labour force of the miners was 11,000 less than in the first quarter. However, by 1944 the extreme measure of directing young men to the mines was in operation¹ and the labour force rose; in that year the average number of wage earners at the collieries was higher than in any year from 1941 onwards. In 1944, then, a falling labour force was not the reason for lower coal production. Even in 1943 it had not been the most important cause. Far more important was the swift decline in productivity.

In 1943, the average output per mine worker for the year was over 12 tons less than in 1942. In 1944 it was 15 tons less than in 1943. Output per manshift had fallen in 1943 and again in 1944; an average reduction of .03 tons in the output of each man on each shift adds up over a year to a loss of some millions of tons of coal. Moreover, both in 1943 and 1944 the average number of shifts worked by each miner fell. As the Table on p. 479 shows, the losses of coal through disputes were serious. Again, the percentage of shifts worked at the coal-face was not maintained; in 1943, when manpower in the pits was falling, it had been an achievement to hold the percentage steady, but it fell in 1944 although manpower rose in that year. For this depressing record there were, no doubt, some causes of a purely physical character: for example, shortage of transport sometimes caused losses of coal. On the other hand, the downward trend of production continued in face of an upward trend of mechanisation: from 1943 onwards more and more electrical equipment and machines for cutting, loading and conveying coal were going into the mines.²

The fundamental causes of the decline in the productivity of the miners cannot be analysed in this book.³ But something must be said about the consequences of falling coal production. Were coal supplies a limiting factor on Britain's war effort? At the end of the coal year 1943-44, there had indeed been some hundred instances of firms forced to stop production temporarily through lack of coal. But stoppages never occurred on a general scale. The war effort in Britain was not noticeably impaired for lack of coal as it was in some other countries—for example, Australia.

¹ As new age groups were called up for military service, men were picked from each group for the mines by ballot; these men were popularly called 'Bevin boys'. See pp. 463-464 above.

² It is true that the amount of some special types of equipment, e.g., washeries, continued to decline.

³ They are analysed in *Coal*.

Three factors prevented shortage of coal from becoming a serious brake on war production. The first factor need only be mentioned; it was the development of open-cast production, which in 1944 produced as much as $8\frac{1}{2}$ million tons. The second factor—economies in consumption and distribution—calls for a brief examination. The consumption of electricity works, of the railways and the Service departments showed increases; but these were more than counter-balanced by reductions in deliveries of coal to domestic consumers and to industry.¹ From December 1943, supplies of coal to all industrial consumers were cut by ten per cent.—unless a consumer could prove conclusively that the cut would endanger essential war production. This severe treatment of industry would have caused far more dislocation than it actually did had it not been for improved fuel efficiency and for the developments that had been made in programming requirements. By March 1944, every consuming unit in the country which used a hundred tons or more of coal and coke in a year was making a weekly return of its consumption and stocks, and was subject to an allocation programme which fixed its weekly rate of receipt and placed on some specified colliery the responsibility for seeing that the weekly deliveries were forthcoming. This programming of the fuel requirements of industry was extremely important. It was perhaps the main contribution of official policy towards narrowing the gap between coal demands and supplies and was far more successful than any of the Ministry of Fuel and Power's attempts to increase coal production.²

There still remains a third factor explaining the balancing of the war-time coal budgets in a manner consistent with an unimpaired war effort. This factor was withdrawals from stock. At the end of the 1942-43 coal year, stocks had been at the high level of 17 million tons. At the end of the 1943-44 coal year they were only $12\frac{1}{2}$ million tons. A year later they were only 10 million tons.

The war effort had not flagged for lack of coal, but the prospects for peace were gloomy indeed when the war ended. Production of deep-mined coal over the next year was only expected to be 175 million tons—a low figure even when 11 million tons of open-cast coal were added. Stocks were so low that no further reduction could safely be contemplated.

¹ Examples of the change in consumption of coal (million tons) :

	1938	1942	1943	1944
Electricity . . .	14.9	22.3	22.6	24.1
Railways . . .	13.2	14.7	14.9	15.2
Industry . . .	42.0	45.7	43.9	41.6
Domestic house coal . . .	44.2	40.6	36.3	33.2
Total consumption and shipments abroad	227.0	205.3	198.4	193.4

² Smaller requirements such as those of domestic consumers and Army and Air Force units were programmed to rail-head depots.

Coal Statistics for the War Years

Year	Saleable output of mined coal tons	Average number of earners on colliery books	Output per wage-earner per annum tons	Output per manshift		Percentage of face shifts to total shifts worked	Average number of shifts worked per week	Absenteeism ²			Tonnage lost	
				At the face	Overall			Voluntary	Involuntary	Total	through disputes	through transport difficulties
				tons	tons	%		%	%	%	tons	tons
1938	226,993,200	781,700	290.4	3.00	1.14	38.03	4.96	—	—	6.4	943,100	Not known
1939	231,337,900	766,300	301.9	3.00	1.14	37.85	5.15	—	—	6.9	676,500	Not known
1940	224,298,800	749,200	299.4	2.97	1.10	37.04	5.27	—	—	8.3	500,600	4,768,100
1941	206,344,300	697,600	295.8	2.99	1.07	35.96	5.37	—	—	9.0	341,900	1,229,200
1942	203,633,400	709,300	287.1	2.91	1.05	35.94	5.34	—	—	10.4	833,200	12,500
1943	194,493,000	707,800 ¹	274.8	$\left\{ \begin{array}{l} 2.86 \\ 2.75 \end{array} \right.$	1.03	$\left\{ \begin{array}{l} 35.94 \\ 37.48 \end{array} \right.$	$\left\{ \begin{array}{l} 5.24 \\ 5.12 \end{array} \right.$	4.9	7.5	$\left\{ \begin{array}{l} 12.1 \\ 12.4 \end{array} \right.$	1,090,700	500,800
1944	184,098,400	710,200	259.2	2.70	1.00	37.19	4.96	5.6	8.0	13.6	3,001,700	587,900

Where two figures are given for 1943 the series of figures above the lines are on a slightly different basis from the figures below the line.

¹ On the introduction of a revised return at the end of 1942 it was found that the practice of certain collieries in arriving at the number of wage-earners was incorrect for certain classes of workers. This resulted in a net increase of about 1,250.

² i.e. the average number of shifts per week that were not actually worked as a percentage of the number that could have been worked. The figures exclude shifts lost through recognised holidays, disputes, transport difficulties, etc. Voluntary absenteeism means absence for which no satisfactory reason is given.

Source: Ministry of Fuel and Power. *Statistical Digest, 1944*. Cmd. 6639

(iii)

Transport

In the last years of the war, transport was almost as great an anxiety as coal. Chapter X told of the transport crisis in the winter months of 1940-41 and of the improvements in organisation by which it was overcome. But the Ministry of War Transport could not relax. For traffic was steadily growing while the labour force and the capital equipment of the railways were deteriorating and petrol supplies for road transport were fluctuating dangerously.¹

As always, the railways were the central problem. From the summer of 1941, they were asked to carry continually more freight traffic even though coal production and imports of commodities both fell. The shortage of petrol and rubber in 1942 reduced road transport still further and aggravated the burden upon the railways. War production was increasing and so were military movements. On top of the normal movement of troops about the country and the normal flow abroad, there were big tasks such as the preparations for the North African landings. At the same time, the railways had to deal with the mounting influx of American troops and equipment into Britain. The culmination of the strain came in the nine months or so before D-Day. By that time, it was possible to make more use again of road transport; on the other hand, imports were again higher. And now the transport services had not only to keep the nation's life going but to bear the burdens of a military base preparing for a major assault. The increase in freight traffic was the biggest problem. It could not be solved by a corresponding restriction of passenger traffic; for, as more families were separated and more troops were concentrated in this country, there was inevitably a big increase also in the number of passenger journeys.

The Table opposite gives some idea of the burdens on the railways. Unfortunately, it only shows calendar years and does not therefore illustrate the peak of traffic in the months before D-Day. It shows, however, that, measured in ton miles, the railways were carrying about fifty per cent. more freight traffic in 1943 and 1944 than in 1938. Their passenger traffic, measured in passenger miles, had risen by sixty-eight per cent.

From the summer of 1941 onwards, the Ministry of War Transport tried constantly to forecast the load on the railways in forthcoming months. The optimism of the early months of the war and the illusion

¹ Thanks to American aid, petrol supplies made a striking recovery in the latter part of 1941 (see p. 257 above). After Pearl Harbour there was again a dangerous fall followed by another striking recovery beginning in the latter part of 1942.

that the railways could comfortably deal with immense increases in traffic had disappeared in the crisis of the winter of 1940-41. The Ministry knew that, if traffic increased still further, the railways would need help. In the first place, action would be necessary to mitigate the shortage of engines and rolling stock. Secondly, as much unessential traffic as possible would have to be cut out. Thirdly, all the transport resources of the country would have to be co-ordinated and the traffic allocated between them.

Railway Statistics

	1938	1941	1942	1943	1944
<i>Freight tonnage originating:</i>					
Coal class (thousands of tons)	173,000	163,000	163,000	157,000	151,000
Other class (thousands of tons)	93,000	124,000	132,000	144,000	142,000
Total (thousands of tons)	266,000	287,000	295,000	301,000	293,000
<i>Net ton miles of freight carried¹</i>					
Coal class (millions of ton miles)	8,104	—	9,951	9,343	9,267
Other class (millions of ton miles)	8,162	—	13,871	15,015	15,177
Total (millions of tons miles)	16,266	—	23,822	24,358	24,444
<i>Wagon miles</i>					
Loaded (millions of wagon miles)	3,003	3,838	3,983	4,052	4,064
Empty (millions of wagon miles)	1,492	1,446	1,412	1,392	1,427
Total (millions of wagon miles)	4,495	5,284	5,395	5,444	5,491
<i>Passenger miles¹</i>					
(Main Line companies)					
Total (millions)	18,993 ²	—	—	32,273	32,052
<i>Number of passengers originating</i>					
Total (thousands of journeys)	1,237,000	1,023,000	1,218,000	1,335,000	1,345,000

NOTE: Freight tonnage originating excludes freehailed traffic; net ton miles include it.

*Source: Statistical Returns Relating to the
Railways of Great Britain 1938-46
(Railway Clearing House).*

By the end of 1941, the locomotive position seemed definitely dangerous. Before the war, the railway companies produced most of their engines themselves but also bought some from outside firms. From the beginning of the war these outside firms were employed either on making engines for the War Office or on war production. The railway workshops themselves were also particularly suitable for making tanks and aeroplane parts. Moreover, locomotives were in direct competition with tank production for scarce types of steel such as castings and boiler plates. For all these reasons, production of

¹ Estimated.

² September 1938-August 1939 inclusive.

engines for the home railways declined steeply. Whereas in normal times the railways constructed or bought a total of about 600 engines a year to maintain their stock, they secured during the first two and a third years of war a total of only 359 new engines; meanwhile, they had surrendered 378 freight engines for government purposes elsewhere.¹ Actually, the operating stock of engines had not fallen so much as these figures suggest, for engines that normally would have been condemned were repaired and brought back into use. At the end of 1941, there were 185 fewer locomotives available for traffic² than at the end of 1938.

This reduction was tolerable for a short period of two years or so; but its effects became dangerous when the war showed every sign of continuing for several more years. Old engines that had been patched could not keep going indefinitely; without more new locomotives it would be impossible to cope with the steady increase in traffic. During 1942, indeed, locomotives became a critical problem of war production. On top of the home demand, the War Office urgently required engines for the Middle East, India and Africa. The engine requirements arising from 'Bolero'—the movement of American troops to this country—were also heavy. Strenuous attempts were made to increase production, at the expense of munitions contracts, in both the railway workshops and the outside firms. But such reconversions are always difficult; in this instance, the main trouble was to find enough boiler makers, for when locomotive production had fallen early in the war many of them had gone off to the shipyards. The plans to produce over 500 engines for the home railways in 1942 did not indeed come anywhere near fulfilment nor did production increase appreciably until 1943. From the middle of November 1942 to the end of February 1943, between 1,000 and 1,500 trains a week had to be cancelled chiefly because of lack of engines. In addition, up to 10,000 trains a week were starting over ninety minutes late. By this time, American officials who were concerned that the 'Bolero' operation should proceed smoothly had become alarmed and were impressing upon the authorities in Washington the need to send prompt assistance. The United States Government promised to lend at least 400 engines for use on the British railways during 1943. In addition, the British War Office also promised to lend engines not yet needed for operations abroad. By all these measures, the number of locomotives available for traffic was raised by nearly 1,000 between the end of 1942 and the end of 1943.

Railway wagons also were scarce in relation to the demands upon them. The production of new wagons, like the production of

¹ 138 had been lost in France.

² The operating stock less those under or awaiting repair. The operating stock was 198 less than at the end of 1938.

locomotives, had been heavily cut. However, the operating stock of wagons was maintained and even increased by keeping or bringing back old wagons that would normally have been scrapped. Until 1942, the workshops kept up with the increased volume of repairs which this policy made inevitable. But from 1942 onwards the number of wagons immobilised for repair rose. In 1944 the increase in the number under repair or awaiting it was so steep—over 31,000—that, although the operating stock of wagons rose, the number actually available for traffic declined sharply. The shortage of wagons did not however, threaten the war effort in the late war years so severely as did the shortage of locomotives. This was due to an increase in the carrying capacity of the wagons caused by greater efficiency in management. The inter-company wagon control that had been set up in 1941 secured valuable economies. Although many more miles were travelled by loaded wagons, the number of miles travelled by empty wagons actually fell. Efforts were also made to ensure that wagons were loaded as fully as possible. Perhaps the most spectacular economies of all were obtained by the improvements in the turn-round of wagons. Investigations into the rate of turn-round—particularly at government depots—led to better organisation and an improved supply of labour at the unloading points. The following figures giving the number of wagons standing under load for more than forty-eight hours speak for themselves:

	<i>March</i>	<i>June</i>	<i>September</i>	<i>December</i>
1941	59,666	56,728	51,359	77,926
1942	52,428	46,987	51,359	44,562 (Jan. 1943)
1943	38,697	40,055	39,795	35,215
1944	32,024	34,477	36,170	33,086

What of the rest of the railways' capital equipment? How did it stand up to the strain of many years of war? There was some new railway development. It was mentioned in Chapter X that in the spring of 1942 the Lord President's Committee approved schemes amounting to a cost of £5 million. After Pearl Harbour, much additional work was necessary to deal with the 'Bolero' traffic and the preparations for a final assault across the Channel. By the end of the war, government expenditure on railway works amounted in all to £11½ millions. Some of the schemes were primarily 'insurance works' undertaken to provide emergency routes; but many were of permanent value. On the other hand, normal maintenance of the railway tracks was very much reduced during the war years.¹ Despite this,

¹ e.g. quantities of materials used on maintenance of way and works:

	<i>1938</i>	<i>1941</i>	<i>1942</i>	<i>1943</i>	<i>1944</i>
Rails (tons)	221,618	159,019	161,459	157,013	156,169
Sleepers (number)	4,495,852	2,785,098	2,834,218	2,860,575	2,832,510
Tracks renewed (miles)	1,485	953	986	1,008	969

(Railway Clearing House Statistics)

the permanent way stood up to the increased traffic better than it had done in the First World War—partly because the track was in a better condition in 1939 than in 1914 and partly because advances in engineering and metallurgy had extended rail life. The effects of prolonged under-maintenance were not seriously felt until the post-war days.

The Government was concerned to maintain and if possible increase the capacity of the railways; at the same time, its aim was to cut out as much dispensable traffic as possible so that the railways might carry the increasing burden of essential war traffic. One of the most fruitful economies was thought to be the elimination of wasteful or unnecessary long or cross hauls, through the exercise of legal powers, and through influence or pressure by the departments which controlled the distribution of goods. A beginning had already been made; the War Office, for example, was using locally produced steel for railway construction, the Mines Department had reduced the number of varieties of coal, the distribution of bricks and cement had been rationalised and the Ministry of Food was pursuing transport economy in the distribution of the bulk commodities that it controlled. As these measures of transport economy developed, they came sometimes into conflict with principles of financial economy; to encourage manufacturers to obtain their raw materials from the nearest source of supply might conflict with the principle of basing contracts on the lowest tender. However, the Treasury agreed in the summer of 1941 that competitive tendering for materials for factories should in future be restricted, so far as possible, to firms within a 'reasonable distance' of the ultimate destination. In addition, controllers of raw materials were instructed to make their allocations with transport factors in mind.

A further impetus was given to the rationalisation of distribution at the end of September 1941, when the Ministry of War Transport informed the Lord President's Committee that, unless drastic steps were taken, the railways would be unable to carry all the traffic brought to them. The Ministry of Food and the Board of Trade then pressed ahead with economy schemes for the distribution of goods between the manufacturer or wholesaler and the retailer. This was much more difficult than rationalising the distribution of raw materials to manufacturers. The Ministry of Food, for example, admitted that, with the single exception of margarine, all foods were carried on uneconomic hauls. For, in peace time, the sale of food had been highly competitive and trade channels had been fashioned by big-scale advertising and by branding particular products. Nor did any of the ministries concerned know much about the distribution of most manufactured goods. When the necessary knowledge was built up, there would still be considerable technical difficulties in the way of

schemes for zoning distribution. The principle of such zoning schemes was to ensure that each zone should supply its own needs if possible; that zones having a surplus should not import at all nor deficient zones export. Since the location of factories was different for every foodstuff and for all kinds of consumer goods, an immense number of separate schemes had to be prepared.

It was not until the summer of 1943 that a really appreciable number of zoning schemes were working. Even then, they hardly added up to that radical reorganisation of distribution which was necessary for achieving the maximum savings of transport.¹ Some individual schemes were as thorough-going as the situation demanded: two notable examples were the scheme for distributing soft drinks, under which the separate identities of the manufacturers were almost completely obliterated, and the scheme for zoning fresh fish distribution. More spectacular, if less important, was the ban on ice-cream production on transport grounds. But other schemes might almost seem to have been devised so as to ensure the least possible interference with the normal channels of trade. The restrictions on the wholesale distribution of groceries and provisions were only light. The Minister of Food would not agree to a national brand of tea without which major transport economies in tea distribution were impossible. Although the distribution of locally produced beers was simplified, little or nothing was done to deny the famous national and bottled beers—Bass, Guinness, Watney, etc.—to any part of the country: this in spite of the fact that these beers, including returned empties, were a bulky and considerable item of railway transport. These discrepancies in the completeness of transport economy schemes reflected not so much the technical difficulties, as the varying resolution and goodwill of those concerned in the schemes. Moreover, the Ministry of War Transport was unenthusiastic about schemes that did not individually involve a large tonnage and the Government at times showed signs of wavering in its austerity. In the autumn of 1942, for example, the transport of cut flowers was banned;² but in the spring of 1943 limited facilities were once more granted.

Nevertheless, the savings of transport through the many zoning schemes must have been cumulatively important. And the strain on the British transport services was such that 'any economy might be decisive at the margin of breakdown'.³

Since coal was the most important single burden on the railways, rationalisation of coal traffic obviously needed close study. The

¹ The examples in this paragraph all refer to food. There has as yet been no research into the transport economies secured in the distribution of consumer goods by the Board of Trade.

² In 1941, 365 special trains had been run for flowers, besides special vans.

³ See *Food*, Vol. I, Chapter XXVI.

collection of regular and accurate information showing where each ton of coal was produced and where it was consumed made it possible to detect and eliminate unnecessarily long and cross hauls of traffic. Where uneconomic haulage was suspected, investigations were promptly made; but they frequently showed that the firm or district in question had to be supplied with special coals which could not be produced elsewhere. Another way of saving coal transport was to run full train loads to single destinations; in the normal way collieries loaded wagons for this destination or that and left it to the railways to sort out into trains the many thousands of wagons moving to all parts of the country. This movement of coal in wagon loads instead of in train loads reflected consumers' habits and the trade practices of a multitude of coal merchants. These habits and practices were hard to change. Some advance was made with 'block loading', but the complete rationalisation of coal transport was impossible unless merchants pooled their orders from the coal depots. The merchants, however, always had many arguments against any such suggestions and the Government never felt disposed to force the issue.

It was important to reduce not only unnecessary freight traffic but also unnecessary passenger traffic. Passenger train services had been progressively reduced in the early years of the war; but by the autumn of 1941 trains had become so crowded that it was desirable if possible to reduce the number of persons travelling by train before imposing further cuts on the time-tables. Measures for rationing travel were considered; however, the administrative problems seemed almost insuperable while the savings might well have been small, since a large proportion of long-distance travellers were Service men. Instead of rationing travel, the Government launched a publicity campaign centred on the slogan, 'Is your journey really necessary?' It also introduced some minor restrictions—the withdrawal of sleeping and restaurant cars, limitations on luggage and parcels and prohibition of Service men's travel at public holidays. Later, in 1943, cheap day fare tickets were abolished. These efforts may have done something to damp down the travelling impulse but they did not prevent the number of passenger journeys from soaring.

As the burden on the railways grew heavier, it became increasingly important to ensure that other forms of transport were so organised as to relieve the railways as much as possible. It also became essential to take firm measures for the efficient allocation of traffic between railways, roads, coastal ships and canals. Not until the spring of 1943 could the Government claim to control the whole inland transport system. The elements of unified control had been assembled gradually. The control over coastal shipping was established early in the war. The canals were brought under direct control in July 1942, when

rising costs were threatening to reduce still further the volume of traffic they could carry. The longest delay in completing the integration of the country's transport arose over road traffic.

The transport crisis in the winter of 1940-41 had shown that indirect methods of control were quite inadequate to ensure that road haulage was available when and where the Government needed it. Throughout 1941, the Ministry of Transport laboured with the road haulage industry to produce a scheme which would establish a fleet of road vehicles that could be called upon at once to do priority work. The organisation that emerged early in 1942 was, in deference to the industry's dislike of direct control, a compromise. As such it failed. The Government had reckoned on chartering some 2,500 long-distance vehicles to form the 'hard core' of a transport fleet which would be ready in an emergency. But so profitable was ordinary commercial road haulage that, six months after the scheme began, the Government had managed to charter less than 500 vehicles. The scheme also proved administratively wasteful.

By the autumn of 1942, the steady fall in stocks of petrol was making rigid economy essential and the strain on transport was growing. It became more than ever important to have a road haulage organisation which would provide for the following needs—efficient movement of the government traffic that had to go by road; strict economy in the handling of all other road traffic; the accumulation of a substantial reserve of long-distance vehicles which would be available if the railways should prove unable to sustain their increasing traffic, or if coastal ships had to be diverted to military uses. Vehicles and drivers must be made available for urgent service at any time; but, before that time came, they must not be employed in unnecessary work that wasted manpower and petrol. The Minister of War Transport decided that, in order to concentrate long-distance traffic into the smallest number of vehicles and at the same time to maintain the vehicles laid up in constant readiness for use, he must take direct control over all vehicles engaged in haulage work for distances over sixty miles.¹ A certain number of well-organised haulage businesses were taken over as a whole; other long-distance vehicles outside these businesses were hired by the Government and paid for at weekly rates. This road haulage organisation came into operation in March 1943.

How was traffic allocated between these different forms of transport? It will be remembered that, in 1941, a Central Transport Committee had been established for the specific purpose of planning the distribution of large blocks of traffic. The Committee could work only on broad lines, but its work was very useful. It impressed on the main transport-using departments the need to transfer as much

¹ There were about 25,000 of these vehicles.

traffic as possible to coastal ships and canals in order to relieve the railways and road transport. Only certain cargoes were suitable for water traffic. In general, coastal tramps were asked to carry the maximum amount of coal. In addition, they took over a large proportion of bulky traffic such as the transport of Scottish seed potatoes to the south. The usefulness of water transport was limited if goods were destined for places far from ports of call or unloading points on the waterways. But there is no doubt that water transport—and in particular coastal shipping—was of inestimable benefit in moving traffic precisely at those points and during those seasons where the railways were pressed most severely. In 1943, the Central Transport Committee considered that regional transport allocation committees should also be set up to control the distribution of traffic at inland points. But it is difficult to consider or study transport conditions except on a national scale, and it is doubtful whether such local committees could be sufficiently aware of conditions in other areas. Another method of influencing the distribution of traffic might have been used by the Government—that is, the manipulation of rates to attract traffic to the most suitable form of transport. In fact, however, rates were not determined by the Ministry of War Transport's allocation policy. Coastal shipping and canal rates, for example, were high compared with railway rates. While subsidies were paid on some of the traffic diverted to more expensive forms of transport, in other cases traders had to bear the extra costs themselves.

We have been discussing the ways and means by which the Government tried to ensure that the inland transport system could bear its heavy war-time tasks. Were these efforts successful? Up to about the autumn of 1943, the transport system was just managing to cope with its burdens. Coastal shipping had carried more traffic with a smaller amount of deadweight tonnage than it had done during the previous winter. The railways had dealt with continuously rising traffic without any major breakdown. There were indeed partial breakdowns, many railways embargoes on the acceptance of traffic and cancelled trains. Probably a miscellany of minor delays in the expanding war effort could be traced to transport hold-ups. But the winter of 1942-43 was unusually mild and the railways survived it without any really serious congestion. It is significant evidence that through 1942 and up until the summer of 1943 very little coal production was lost through inadequate transport.

By the summer of 1943, Britain was a very tightly mobilised country. In spite of old capital equipment and a less efficient labour force, the transport system could just about manage to deal with the traffic which this immense war effort involved. But it was strained almost to the limit and could carry no further large increases in traffic. Fortunately, petrol and rubber were now more plentiful and

allowed greater use to be made of road transport. Nevertheless, the position on the railways steadily deteriorated. Troops and equipment were concentrating in Britain—in the last four months of 1943 half a million American soldiers arrived and British troops were also coming home from abroad. Passenger traffic as well as freight traffic was growing. The railways' difficulties increased when there occurred widespread autumn fog and a December epidemic of influenza among the railway staff. Fortunately, the rest of the winter was mild; but, even so, congestion persisted on the railways. During the last quarter of 1943 and the first quarter of 1944 a total of over 913,000 tons of coal were lost through shortage of transport. This was a serious amount when the coal budget was balanced so finely and some factories were even being compelled to stop work through lack of coal.¹ The Minister of Fuel and Power appealed for overriding priority for the movement of coal on the railways; but his appeal failed.

Early in 1944 it was obvious that drastic measures would be necessary if the lines were to be cleared for the great military operations of the summer. For it was estimated that operational freight traffic would amount to from 38,000 to 40,000 tons a day, while a tonnage of coastal shipping sufficient to carry about 1,400,000 tons a month of freight would be withdrawn for military purposes. In addition, since London and other southern ports must be kept clear for the invasion preparations, imports had to be diverted northwards—a change that involved long hauls over crowded railway lines. In February 1944 two committees—one official and one ministerial—were set up to study the measures necessary to increase the capacity of inland transport and to reduce traffic offerings to the level that would allow the heavy military movements before and after D-Day to go forward unimpeded. The official committee estimated the maximum amount of tonnage which the railways could move. Locomotives and wagons were available and the tracks were in reasonably good condition. Additional labour was needed and the Minister of Labour did his best to recruit it. Watch also had to be kept on those junctions and exchange points where congestion appeared most speedily. Having estimated railway capacity the official committee proceeded to ensure that excessive traffic did not come forward. Neither coal output nor essential movements of food—both heavy items of railway traffic—could be interfered with; but considerable cuts were made in other bulk traffic—steel, fertilisers, timber, lime and chalk, building materials and raw materials. The cuts were to start about May and last for at least three months. Since stacking and storing capacity were limited, this meant reductions in output; a considerable number of blast-furnaces, for example,

¹ Perhaps 100 factories: see above, Section (ii).

had to be allowed to die. To reduce passenger traffic, all privilege leave in the Services was stopped.

A transport balance sheet was thus constructed and it was constantly readjusted during the last months before D-Day. The officials did their work well—so much so that none of the invasion ships were delayed in fulfilling their timetables because soldiers, weapons or stores had not reached the ports on time. The railways were kept clear. Coastal shipping and road haulage responded well to the demands upon them. British transport had mastered its greatest wartime task. The immense operations of D-Day were launched smoothly and without delay. It must however be recognised that the cuts imposed on production were severe. In the quite exceptional circumstances of the summer months of 1944, when Great Britain was not only an arsenal but also a military base, transport was a real limitation. It could handle military operations only at the expense of the transport of important materials.

CHAPTER XVII

THE CIVILIAN ECONOMY

(i)

The Lean Years

By the time Pearl Harbour was attacked, civilian claims upon the war economy had been severely reduced. The national store of capital equipment employed in purposes other than those directly concerned with the war was diminishing through under-maintenance and lack of replacements.¹ The civilian standard of living had fallen considerably. After 1941 there was no scope for further dramatic reductions in the civilian share of the national output. Although it was still necessary further to constrict civilian demands whenever possible, it was no less necessary to make sure that the standard of living and the maintenance of capital equipment did not fall below the minimum compatible with efficiency and high morale.

There was of course no simple definition of this minimum; policy was necessarily built up by a long-continuing series of particular decisions. As regards capital equipment, every application for a licence for machinery or building could be judged on its merits. It was much more difficult to decide where the minimum standard of living lay. As the Prime Minister once reminded his colleagues, Great Britain was 'a modern community at war, and not Hottentots or Esquimaux'. There was no certainty even in calculating the number of calories needed for bodily strength, let alone the indispensable minimum quantity of clothing or the quantity of fuel needed for minimum warmth. Still less could the Government decide in advance how low the production of essential consumer goods—cups, for example, or needles or saucepans—should be allowed to fall. For a time, production could be cut drastically without serious results. But, as the war dragged on year after year, household and trade stocks were used up and the search for crockery or something to cook in—both indispensable needs in modern life—consumed more time and temper than the economies in labour or raw materials justified. It was important to keep supplies of such essentials at an

¹ i.e. the total store of capital equipment: there were a few 'civilian' industries which ended the war with improved equipment; agriculture was the outstanding example, though the number of livestock—an important part of agricultural capital—fell.

adequate, even if a modest level. Nor was it possible to eliminate ruthlessly all those goods which, by the strictest standards of austerity, might be called unessential in a war economy. Long wars are full of anxiety, tedium and exhaustion and workers cannot give their best over a stretch of years if they have no relaxations. Opinions could indeed differ widely about the desirable level of the supply of 'unessentials'. The zealots of efficiency and sacrifice could always make a strong case for decisions that would free some extra shipping space or release some extra labour for the munitions industries. But might not the war effort be better served by maintaining the supply of tobacco, horse-racing, cinemas, ice-cream or flowers—things which would strengthen the will to work or brighten dreary lives? To such a question it could be answered that this was a hard war, that victory was still in doubt and since the major economies had already been made, it was only by a series of small economies that additional resources could be released for direct war purposes.

The reduction in the standard of living was throughout determined largely by a process of trial and error and by the prevailing balance of opinion about public psychology. After the disasters in the early months of 1942, for example, the mood was a strong desire for sacrifice. In March, the Lord President's Committee called for a more drastic curtailment of activities not essential to the war effort. But the 'civilian' purposes which used scarce resources such as shipping in the greatest quantities were not deemed to come within this category. Food was the outstanding example: in essentials, food standards did not suffer from the shipping vicissitudes of 1942 and 1943.¹ Significant reductions in the quantity or the variety of diet—even temporary reductions—were strenuously resisted on the grounds that they would impair health and the ability to work. Rations had their ups and downs, but in general they remained adequate and reasonably palatable and varied. Civilians could, moreover, not only eat rations at home but also unrationed meals in canteens or restaurants. Early in 1942, the Government reconsidered the rationing of restaurant meals—a proposal hitherto rejected because the economy in food would be small in relation to the administrative difficulties. Once more it was dropped, mainly because canteen meals could not be excepted. All that emerged from much anxious thought was some new regulations for restaurant meals—in particular, the restriction of courses and a 5s. maximum charge.² This was a response to public uneasiness about luxury feeding in war time.

The Government had concluded that it would harm the war effort to impose further cuts on food supplies. They came to the same

¹ Chapter XIV has discussed food policy in the context of the shipping shortage.

² Except in the case of establishments with high overheads, where an extra 'house charge' was permitted.

conclusion about tobacco. In March 1942, the President of the Board of Trade informed the Lord President's Committee that in order to meet current consumption and prevent stocks from falling below the danger level 112,000 tons of tobacco must be imported during the year. Tobacco imports, it was clear, could be increased only at the expense of other cargoes, but the Government felt that in the interests of efficiency and morale, tobacco supplies should be maintained at the level of demand. On the other hand, the abolition of the basic civilian petrol ration, which had been strongly opposed in 1941 for social and political reasons, was accepted in March 1942.

The most significant changes affecting civilian standards during the last years of war were those in the range of goods covered by the Board of Trade. Before Pearl Harbour, supplies of all goods had already been steadily reduced in order to release shipping and labour; in the opinion of the President of the Board of Trade, some of the restrictions had gone almost too far. Nevertheless, the screw could still be turned tighter. In the spring of 1942, for example, it was decided to cut the general clothing ration for the year 1942-43 by about a quarter. This brought the volume of adults' clothing purchases down to something like half of pre-war; the volume of children's clothing was down to about sixty per cent.¹ Wherever possible, the Board of Trade was still zealous in cutting its demands. It was always anxious to eliminate unessential production. But it was also increasingly concerned with maintaining supplies of essential consumer goods to meet minimum requirements.

The old methods of control by Limitation of Supplies Orders were not suitable for the new times.² Although a certain flexibility had been introduced into the Orders, they still covered broad classes of goods and could not discriminate sufficiently between the essential and unessential products in any class. Moreover, they controlled the disposal of supplies and not actual production. More direct methods of control were therefore necessary. They were not possible, however, without a certain change of heart in the Board of Trade. When the Board had first discussed utility clothing in the summer of 1941, there had been a strong feeling that the Government could not hope to force large numbers of firms to make something they did not want to make. Policy, therefore, had been based at that time on the provision of incentives rather than on control and directions.

The first departure from this general policy occurred in the autumn of 1941 with hollow-ware production. An acute shortage of pans, kettles, buckets, etc. had developed. In order to ensure that the

¹ This rate was maintained until February 1945 when pressure of demand for clothing for demobilised men, combined with a lower textile labour force, reduced the ration still further.

² See pp. 321-325 above for earlier Board of Trade policies in limiting consumer goods.

limited supplies of labour and material remaining to the industry were used to the best advantage, production was permitted henceforward only under licence; licences were granted for nothing except essential articles made to approved specifications.¹

It soon became clear that some such direct control was needed also for clothing. Hitherto, the policy of inducements had regulated the proportions of utility and non-utility production. It had failed to secure a balanced production of different garments. Clothing is, after all, interchangeable only within narrow limits; an abundance of stockings is no compensation for a lack of shoes and it is useless to offer stock-size garments to outsize people or adult clothing to children. Producers faced with artificial market conditions and with demand muffled and distorted by price control, could neglect essential goods in favour of others that were more profitable or for other reasons more attractive to them. The Board of Trade, therefore, realised that it must take new measures to ensure real economy and a fair deal to the majority of consumers. In the early summer of 1942 the control of textile and clothing by quotas was dropped and a new Apparel and Textiles Order² required manufacturers to comply with any directions regulating or prohibiting manufacture or supply. With this Order behind it, the Board of Trade could do much more to equate the demand and supply for particular types of clothing. It collected estimates of demand through consumer surveys and by watching statistics of stocks and sales. Production was then organised to meet demand. These planned budgets, moreover, proved themselves to be a much more authentic basis for assessing claims upon raw materials and labour.³

These new methods of control spread further. Towards the end of April 1942, the President of the Board of Trade submitted to the Lord President's Committee proposals to control production in a much wider range of consumer goods, in some cases to prohibit manufacture altogether and in others to limit production as far as possible to price-controlled utility goods in quantities sufficient for essential civilian needs. The President made it clear that widespread prohibition of manufacture would be involved. It might prove impossible to absorb some of the elderly workers thus released and in many small industries, businesses might be closed down completely. The Lord President's Committee was now in a less drastic mood and was inclined to think that the price of the Board's proposals would be too high; nevertheless discussions were begun, with the industries concerned and the new policy was launched in the summer of 1942.

¹ S.R. & O. 1941, No. 1345.

² S.R. & O. 1942, No. 1000.

³ Minor measures to secure economy in production were the austerity restrictions on clothing styles which, among other things, abolished turn-ups on men's trousers, limited the length of men's socks, the number of trimmings, pleats, pockets, etc.

In June of the same year, the manufacture of pottery¹ and of pencils² was controlled, and in August control of manufacture and supply was extended to a long list of consumer goods³—floor coverings, metal furniture, domestic electric appliances, sports gear, mechanical lighters, fountain pens, umbrellas, musical instruments and furniture. There was no uniform control. The purpose and the detailed method varied from product to product. With pottery, as with hollow-ware, the aim was to produce as many essential articles as possible with a labour force that had already been depleted quite enough, or even perhaps too far; only specified articles made in plain, undecorated ware were licensed. With musical instruments, on the other hand, the aim of control was rather to squeeze still more resources out of the industry. Under the Limitation of Supplies Orders a small general quota had been allowed; but under the new controls manufacture of musical instruments was licensed only for supply to organised bodies connected with the Forces, schools and so on; the one exception was a small supply of gramophone records and needles for the ordinary civilian. In some of the controlled industries, the products—for example, pencils and cigarette lighters—were standardised; in others they were not. In some cases, licences to manufacture clearly specified the people to whom the goods were to be supplied; this principle applied to musical instruments and also to sports gear, metal furniture and some kinds of electrical appliances. In other cases, however—umbrellas, or cigarette lighters or fountain pens—the supply had obviously to be an open one.

One of the most interesting and comprehensive controls was that over furniture.⁴ For most people, new furniture in war time was quite unnecessary. But the severe shortage of cheap furniture hit certain classes, such as newly married couples and bombed out people, very hard. The furniture control was designed to meet these special needs. An advisory committee drew up, for the essential pieces of furniture, specifications which combined good, simple design with the maximum economy of materials and labour. Manufacture was restricted to these models and a distribution scheme confined purchases to those whose needs were greatest.

It is clear that since the orders controlling manufacture and supply licensed only essential types of production, they involved prohibitions on all the rest in the same class. Some classes of goods, however, still remained under control by limitation of supplies. Others had never been effectively controlled. In its efforts to eliminate unessential

¹ S.R. & O. 1942, Nos. 1038 and 1039. The definition of 'essential' crockery was perhaps a little wide: it included, for example, sauceboats.

² S.R. & O. 1942, Nos. 984, 985, 1256.

³ S.R. & O. 1942, Nos. 1452–61, 1620.

⁴ S.R. & O. 1942, Nos. 2214, 2580, 2581, 2589, 2641, 2650.

production and transfer material and—more particularly—labour to war purposes, the Board of Trade made an Order¹ in the summer of 1942 prohibiting the manufacture of a long list of fripperies ranging through jewellery, metal toys, ornamental glassware, fancy goods, bird cages and a miscellany of household gadgets. For some time, no materials had been issued for the manufacture of these goods; but the prohibitions were needed to buttress raw material control by making it impossible—for example—to use existing stocks of material. To avoid harshness towards elderly or disabled workers, licences to manufacture goods on the prohibited lists were granted if materials were not scarce and if the Ministry of Labour testified that the workers could not be absorbed into some useful alternative employment.

As the war went on, the distinction between essential and unessential civilian goods became more and more marked. As repeated calls were made upon the civilian industries to release still more labour, the unessential industries declined still further; on the other hand, the Board of Trade fought to maintain and sometimes to increase the labour necessary for producing essential civilian goods. Its efforts were not always successful. It proved almost as difficult to expand the over-contracted textile industries as to resuscitate the coal industry. And many essential goods remained too scarce throughout the war. The shortage of necessities for children—perambulators, rubber teats and footwear for example—was particularly acute, for the war-time rise in the birth rate had taken the Government unawares. Another example was the laundry services; there was anxiety that they might break down under the combined pressure of civilian and Forces' work. Bus services were also inadequate. Trouble had begun in 1941 with a shortage of buses and, in spite of the allocation of new buses to civilian transport, the difficulties persisted throughout the war. The Prime Minister himself was emphatic about the need to improve bus services and so lessen general fatigue.

Housing was perhaps the most serious of all the civilian shortages in the last years of the war. By the end of 1942 conditions were already very bad. About 300,000 families were living in houses that had been or would in ordinary times have been condemned as slums; 2½ million families were living a spartan existence in bombed houses which had only received first-aid repairs; another vast number was living in over-crowded conditions. Air raid damage and destruction, military requisitioning, the evacuation of coastal areas and, most of all, the virtual cessation of new house-building since 1939, had all played their part. The Minister of Health insisted that morale would

¹ S.R. & O. 1942, No. 1451.

suffer if housing conditions were not improved. Early in 1943, therefore, the War Cabinet agreed that repairs should begin on some of the 97,000 houses made uninhabitable by bombs and that 3,000 cottages should if possible be built in rural areas. But the work went very slowly and by mid-1943 housing conditions were worse than ever. The Lord President's Committee agreed therefore that, after the demands for war building had been met, housing should have first call on any immobile building labour. A few months later the Government authorised some conversion of large houses into flats and the completion of partly finished houses. In the spring of 1944, the Government was anticipating that all repairable bomb-damaged houses would be repaired by the end of the year; but the flying-bombs and rockets extinguished such hopes. Bad housing was left as one of the worst of the social and economic legacies of the war.¹

Measures to reduce the nation's domestic capital and standard of living were frequently accompanied by controversy; some people thought successive cuts went too far, others that they could go considerably further. It is important to understand the basis of this controversy. The arguments for or against these sacrifices scarcely ever hinged upon the question whether the United Kingdom could, in the long run, afford them; nobody doubted that the full price of victory must be paid, whatever might be its final cost to the national economy. Opinions differed, not on the aim but on the means of achieving it. Would the indirect ill effects of any individual cut outweigh the direct benefit to the war effort? Would efficiency and morale suffer? Would the administrative costs be too heavy? Even in retrospect, it is not easy to find the right balance. As far as the standard of living is concerned, it is probable that the degree of austerity achieved was about right—a great contribution was made to the country's war needs and the morale of the population remained high right to the end of six hard years of war. On the other hand, since the war lasted six, not three years,² some of the cuts in capital formation proved to have gone too deep.

The great transfer of resources from civilian to direct war purposes would have been impossible without the country's approval. People were ready for lower standards of life and most industries accepted reduced standards of capital equipment. There were however some instances in which the surrender of resources was limited by the unwillingness to co-operate of the people adversely affected. This was a contributory reason for the Government's decision in the summer of 1942 to drop the proposals for fuel rationing.³ Opposition also

¹ The same was true even in countries which fought a shorter war and did not suffer great destruction of house property by bombing.

² For the concept of a three years' war as held in 1939 see p. 95 above.

³ See p. 472 above.

deterred the Government from enforcing drastic economies in many of the distribution services. This was true of some of the schemes for transport economy through 'zoning'.¹ The same was to some extent true of local retail deliveries. For example, whereas milk deliveries were drastically reorganised in order to save labour, the only restriction on bread distribution was a limitation of deliveries to three a week: as many bakers as wished to could still deliver in the same street. Similarly, coal distribution was never rationalised. The Government was not ready to force the 20,000 or so coal merchants even to pool their orders to collieries in order to save transport;² much less would it compel the pooling of supplies, stocks, labour and vehicles at the merchants' depots.

Other failures or disappointments must be recorded. There had been discussion about the concentration of the non-food retail trades ever since the concentration of industry proposals were formulated.³ A policy was needed which would extract from these trades as much labour and storage space as possible while maintaining essential shopping facilities. It was desirable to reduce the number of retail outlets without causing unnecessary hardship amongst shopkeepers. In the hope of finding some such policy, the Board of Trade had set up a Retail Trade Committee in May 1941. The extreme inadequacy of statistics about retail trade, the acute differences between different sections such as the co-operative societies, big department stores, multiple stores and small traders, and the vagueness of the Committee's terms of reference were some of the main reasons for its delay in producing any concentration proposals.⁴ At length, in June 1942, the Committee recommended voluntary withdrawals from the trade, to be compensated by a compulsory levy on continuing traders. These proposals were not very helpful—voluntary withdrawals would not yield sufficient labour—and a storm of opposition in the press, the trades and the House of Commons⁵ greeted the suggestion of a levy. Small retailers, after all, constituted only one example of a very large category of people equally valuable to society, equally hit by war conditions and with an equal claim to assistance. The Government turned down the proposals of the Retail Trade Committee. Henceforward, the Board of Trade in its retail trade policy was increasingly concerned with the survival of the small traders. Supplies to them

¹ See p. 485 above.

² See above, p. 486.

³ e.g. speech of President of the Board of Trade, H. of C. Deb., Vol. 370, Cols. 740–742.

⁴ The Committee produced two interim reports. The first recommended the restriction of new entrants; this principle was adopted in the Location of Retail Businesses Order, S.R. & O. 1941, Nos. 1784 and 1933. The second surveyed—with undue gloom—the restrictions affecting retail trade. The third report was the one on concentration. All three were published by H.M. Stationery Office.

⁵ H. of C. Deb., Vol. 382, debate of 23rd July 1942.

were to be safeguarded and the demands for labour and storage space were to be met as far as possible from the big shops.

Is it possible to measure the changes in the civilian economy during the last years of the war? Some of the tables in the statistical summary give a broad guide. Even though the figures in Table 1(a) on p. 347 do not allow for changes in prices, it is quite clear that 'civilian' capital equipment continued to diminish at an uncomfortably high rate through 1942, 1943 and 1944. On the other hand, Table 1(b) shows that the total volume of purchases of consumers' goods and services did not change significantly after 1941. In 1942 and 1943 purchases were a little lower than in 1941 and in 1944 a little higher. The figure for total purchases, however, conceals important fluctuations between individual categories of goods and services. For example, the nation had more travel, more entertainment, more smoking—though some of this increase was due to the large numbers of Allied Servicemen stationed in the United Kingdom. On the other hand, far fewer household goods were bought and private motoring dwindled to almost nothing. These figures do not pretend to be more than the very crudest guide to changes in the standard of living. They cannot take full account of changes in quality and they make no allowance for restrictions in consumers' choice nor for the general conditions of war-time life. Moreover, the figures show total national consumption, and at a time when the size and composition of the population is changing there are bound to be great variations of individual experience. But in spite of all their inadequacies these figures help to give some idea of the contribution that the war effort exacted from civilian standards in Britain.

The experience of the United States and Canada was very different. In these countries, too, additions to the stock of 'non-war' buildings and capital equipment ceased, many capital goods were not replaced as they wore out and stocks of civilian goods were run down. But when peace-time uses of war property (munitions plant, army trucks, merchant ships, etc.) are taken into account, the United Kingdom alone suffered a net reduction in national capital.¹ As for consumer goods and services, the Table on p. 500 shows the differences of expenditure in the three countries. In part, this Table underlines the conclusions drawn from the international study of manpower figures:² increase in total output in the United States and Canada was much greater than in the United Kingdom; the diversion of production from civilian purposes was much less. The Table also reflects the effects of the shipping shortage upon the United Kingdom with its dependence upon imported food and materials. In all three countries, consumer goods using materials for which there were

¹ *The Impact of the War on Civilian Consumption*, pp. 15-20.

² See above pp. 370-373.

directly competing demands from the munitions industries became scarce—metal household goods, for example. In the United Kingdom in addition, all goods depending on imports became scarce. Finally, because civilian production was cut two years earlier in the United Kingdom than in Canada and the United States, the United Kingdom ran down its stocks much sooner. In Canada and the United States this unused reserve helped, even in 1944, to maintain the level of consumer purchases.

All Consumer Goods and Services
Percentage Changes in Per Capita Purchases by Groups
(valued as far as possible at pre-war prices)

	U.K.	U.S.A.		Canada	
	1938- 1944	1939- 1944	1941- 1944	1939- 1944	1941- 1944
1. Food (a)	-11	+ 8	+ 4	+13	+ 6
2. Alcoholic beverages and tobacco	+ 8	+33	+19	+24	+ 6
3. Clothing and footwear	-34	+23 ¹	+ 9 ¹	+222	+ 3
4. Housing (b)	+ 9	+14	+ 9	(c)	(c)
5. Fuel and power	+ 2	+32	+18	+28	+15
6. Household goods (mainly electrical and metal (d))	-82(c)	-23	-5 ¹	-13	-24
7. Household goods (other) (d)	-51	+26 ¹	+ 3 ¹	+15	+ 2
8. Other personal effects (d)	-37	+43 ¹	+18 ¹	(c)	(c)
9. Reading matter (d)	+ 1	+24 ¹	+ 7 ¹	+22	+15
10. Amusements (d)	+10	+10 ¹	+ 6 ¹	+53	+29
11. Motor vehicles and their operation	-95	-52 ¹	-61 ¹	-52	-56
12. Public transport (d)	+13	+87 ¹	+59 ¹	+95	+41
13. Postal, telephone and telegraph services (d)	+ 8	+33 ¹	+17 ¹	(c)	(c)
14. Miscellaneous services	-33	+19 ¹	+ 8 ¹	+11 ¹	+ 5 ¹
15. Total consumption	-16	+16 ¹	+ 4 ¹	+16 ¹	+ 5 ¹

Source: The Impact of the War on Civilian Consumption in the United Kingdom, the United States and Canada; this book and its appendices give a detailed analysis of the table. It also reconciles the U.K. figures with those appearing in the white papers on National Income and Expenditure.

NOTES: The population base used for calculating per capita expenditure in total and for most individual categories is the total civilian population. In groups 9, 10, 12, 13, the population base is the total civilian population plus the armed forces stationed in the country; in group 2 it is civilians aged fourteen and over plus the armed forces stationed in the country.

(a) Including non-alcoholic beverages. The changes shown represent changes in the value of food consumption rather than of purchases.

(b) Rent, rates (in the U.K.) and water charges.

(c) These items are included in miscellaneous services; so are some household goods, some amusements and the value of room and board furnished to commercial employees. The percentage change is to 1943.

(d) The change is to 1943.

(e) The pre-war year is 1935.

¹ Provisional.

(ii)

Financial Policy

Thus the country's standard of living fell heavily. It was a chief aim of financial policy to distribute the burden of this fall as fairly as possible. Another chief aim was so to arrange financial incentives that the transfer of resources to war purposes would be eased and encouraged.

Intensive study of these ends and of the means to fulfil them had occupied much time and thought within the Government since the first days of war. The rearrangement of incentives involved no single decision of policy but was rather a general aim to be remembered in a whole range of discussions at ministerial and administrative levels. To spread the cost of the war fairly, and to control the inflation that was inherent in such an immense war effort, demanded more specific action. A network of firm policies was needed.

By the time Pearl Harbour was attacked, all the main threads of this network were woven.¹ The gap between spendable incomes and available goods had been narrowed not merely by a great campaign for voluntary savings but by resolute taxation. Direct taxation had been increased up to the limits beyond which incentives to all-out production might be stifled, or hardship in individual cases become intolerable; indirect taxation on all but the minimum essentials of life had mopped up more purchasing power. On the other hand, the cost-of-living index was stabilised. The index was pegged mainly by manipulating food subsidies, although a beginning had also been made with the production to strict specification of essential goods whose prices could be strictly controlled. Stabilisation was designed both to prevent claims for increased wage rates and to ensure that essential goods that were scarce did not go simply to those who could pay the highest price. Price control by itself was not of course enough; it had to be buttressed by rationing over as wide a field as possible.

By the beginning of 1942, all these principles were accepted and in practice. Apart from a brief resurrection of the problem of wages policy in the late summer of 1942,² all the main elements of financial policy remained settled. For the rest of the war they were not called in question.

The ever-increasing strain on the civilian economy meant of course that taxation needed to become even more drastic and strict price control and rationing more extensive. Direct taxation was thought to have reached its practical limit; but in 1942 and again in 1943

¹ See Chapter XII.

² *Ibid.*

indirect taxation on tobacco, alcohol, entertainments and luxury goods was raised. The percentage of expenditure borne out of revenue increased, in fact, throughout the war—from thirty-nine per cent. in 1940 to fifty-five per cent. in 1944. This steady rise, and the actual height of the percentage, were indeed notable landmarks in the financial history of modern wars; in 1918 a percentage of twenty-nine had been thought a fair performance. Moreover, control of the loan markets made it possible for the Government to borrow at low and steady rates of interest the sums still necessary after taxation to finance its immense expenditures.

As for prices, stabilisation of the cost-of-living index continued. Rising costs at home and abroad made it increasingly expensive; Government subsidies rose from £72 millions in 1940 to £215 millions in 1944. The stabilisation policy was undoubtedly of the greatest value in keeping the economy steady. But, although it put a brake on increases in wage rates, it did not fulfil its purpose of keeping the wages-level somewhere near the level of the spring of 1941. When the stabilisation policy was first introduced, wage rates had risen six per cent. less than the cost of living; but by the spring of 1944 they had risen eleven per cent. more than the cost of living. Some of the increases were indeed necessary to remedy anomalies in particular industries, and others were justified by increases in productivity; others however had been granted for much less satisfactory reasons. In these circumstances, the Chancellor of the Exchequer, in his 1944 budget speech, contemplated a range for the cost-of-living index of 30–35 per cent. over pre-war, instead of the 25–30 per cent. laid down in 1941.¹

The cost-of-living index was stabilised largely through subsidies; most of them were on food but some of them were on raw materials and a few on manufactured articles—for example, woollen and cotton utility cloth. From 1942 onwards, means were increasingly found for keeping the cost of living steady without subsidies. Closer control over the production of many consumer goods made it possible to fix their prices more strictly and in some cases actually to reduce costs by longer production runs and so forth.² The price control legislation of 1941³ had opened the way to fixing precise ceiling prices at every stage of production and distribution. This was by far the best method of price control since it alone could be properly enforced. But these maximum prices could only be fixed for articles that were clearly defined and identifiable. For these reasons, the Government had launched the utility clothing scheme and the arrival in 1942 of good

¹ H. of C. Deb., Vol. 399, Col. 663 (25th April 1944).

² The reduction of advertising costs and the austerity style restrictions also helped to reduce costs.

³ See above, p. 336.

quantities of utility clothes on the market, together with the remission of purchase tax on them, at last sent the clothing items in the cost-of-living index down.¹ The Board of Trade was anxious to control not only the significant items in the official cost-of-living index but also the actual war-time cost of living. From 1942, therefore, the utility principle spread over a much wider field.

For the purposes of price control, it may be noted, the existence of a formal utility scheme was not the essential condition; what mattered was that there should be some workable identification. In general, the closer the specification the more effective was the price control.

The arrangements for producing utility goods very seldom achieved anything approaching complete standardisation. Nor were the specifications often close enough to guard against deterioration in quality. A bigger obstacle to rigid price control was the difference between manufacturers' costs. The accounting systems of many firms were indeed so imperfect that it was difficult to determine their costs, and even when accounts were satisfactory, different firms used many different methods of costing. When costs were ascertained, the Board of Trade was faced with the familiar quandary. Ceiling prices had to be fixed at a level that would cover high-cost manufacturers without whose production demand could not be met. But without some additional restraint, these ceiling prices would tend to become minima, or quality would deteriorate; the low-cost manufacturer would then reap excessive profits. The Board of Trade usually stipulated, therefore, that manufacturers should charge either the fixed ceiling price or their cost plus a percentage, whichever was the lower. This arrangement, however, was difficult to police among a host of manufacturers and it also bore the usual disadvantages of the cost plus system.

Price control under the 1941 legislation was, with all its imperfections, a great improvement on what had gone before. But it must be remembered that it never covered the whole field. Except in a very few industries such as furniture and hosiery it was not considered practicable to achieve anywhere near 100 per cent. utility production. Goods outside utility and 'near-utility' schemes were covered only by ineffective price controls—the old Prices of Goods Act or later 'stand-still' orders. The inefficiency of price control over non-utility or unessential goods, the imperfections even of the ceiling price methods and the tendency of distributors to deal in more expensive goods—all these reinforced the need for strong production controls to ensure that firms did not divert their efforts away from cheap or essential goods.²

¹ The remission of purchase tax was in August 1942. This threatened actually to reduce the cost-of-living index. Since a fall in the index would be almost as embarrassing as a rise, food prices were increased.

² On price control generally see *Civil Industry and Trade*, Chapters IV, XXI and XXII.

Price control, on the whole, kept scarce essential goods within the reach of the general public. Unless it was combined with rationing, however, shop shortages and queues were substituted for high prices as a method of distribution. Unfortunately, there were all kinds of limitations on the extension of rationing. Food did not cause much difficulty; more and more foods were brought within the points scheme, other foods were reserved for priority classes such as children and expectant mothers, sweets and chocolates were rationed from the middle of 1942. Soap was rationed—at first in a mild way—from the beginning of 1942. But there were other essential goods and services which proved more troublesome. As we have seen, administrative difficulties were too great to permit the rationing of travel; difficult problems of administration and enforcement were a main reason for abandoning fuel rationing. Tobacco could probably have been combined with sweets in a personal points scheme, but, in the interests of morale, it had been decided instead to maintain imports at the level of demand.

There was increasing concern over the distribution of household goods—the pans, crockery, brushes, bed clothes and so forth—which were so elusive in the shops. From time to time in 1942 and 1943, various points schemes for these goods were discussed. The difficulties, however, always proved too great. Problems of equity would be particularly acute because of the infrequent intervals at which most household goods were bought, the great importance of a household's initial stocks, and the different sizes of households. Special cases and businesses and institutional users would produce administrative nightmares, to say nothing of the technical difficulties of drawing up a pointing list and collecting coupons. And, after all, the ration could only be minute. If rationing covered bed linen, bedding, hollow-ware, crockery, glassware, and cutlery, the total retail value of the goods available for domestic users would only be about £20 millions a year—less than half the value of the sweets ration. After allowing for the special claims of new households, the general ration might be about 1½d. a head a week.¹ The idea was inevitably turned down as impracticable. For some goods, however, special distribution schemes were worked out. Permits to buy utility furniture, for example, were granted only to priority classes such as newly married couples, bombed-out people, parents setting up house because they were expecting children, or parents needing beds for growing children. A system of priority dockets ensured that the same people had first call on the limited supplies of bed clothes and floor coverings. Or again, specific clothes in very short supply such as rubber boots were reserved by the device of buying permits for the people who needed them most. Many goods, too, were confined to special classes

¹ For example, the annual output of sheets per person in 1943 was 0.025.

of users by the controls over manufacture and supply—metal beds for hospitals or sports goods for schools and the Forces.

All these measures supported price control and were also the extension of a well-grounded social policy. There was little dispute about them. The difficult questions of financial policy in these last years of the war arose rather over particular discrepancies in standards of life or particular industrial problems. One of the sharpest issues raised in the press and Parliament was over differences of pay between civilians and the fighting services. It was this public criticism which spurred the Government to action. A debate in the House of Commons at the end of 1941, the prospect of a debate in the autumn of 1942 and again in the spring of 1944¹ set ministerial discussions afoot and produced revisions of pay. The subject was difficult and the habit of comparing civilian and Service rates of pay could be misleading, since the systems of pay differed so fundamentally. Payments in kind, dependents' allowances, relief from income tax and the chances of proficiency pay, tradesmen's pay and promotion had all to be taken into account.² But although when all this was taken into account the total pay and allowances of a private seemed near the average industrial earnings, many privates had been earning more than the average in civilian life, and there were innumerable cases of servicemen's families living near the families of workers earning much more than the industrial average.

Before the 1942 revisions, the Government admitted that there was a general discrepancy between civilians' and servicemen's families. For example, the allowance for the wife and two children of a private, including his own compulsory allotment of pay for their support, was only 38s. a week. War Service Grants could be made to prevent excessive hardship, but they did not prevent the smaller continual hardships of life nor exclusion from the minor luxuries of war-time existence—entertainments, the more expensive points foods and so forth. The pay revisions of 1942 concentrated on improving children's allowances; at the same time compulsory allotments of pay to families were reduced and post-war credits introduced in the first review of that year, and in the second review there was a basic increase in pay for other ranks and improved promotion prospects for officers. The 1942 revisions were intended as final. But civilian wages went upwards and by 1944 the gap between Service and civilian pay seemed even wider than before. Again there was Parliamentary criticism and again a Government review. Large increases in allowances were made³—a

¹ H. of C. Deb., Vol. 374 (16th October 1941); Vol. 376 (17th December 1941); Vol. 383 (10th September 1942).

² The Government set forth these considerations in Cmd. 6385 (August 1942): *Pay and Allowances of the Armed Forces*.

³ Cmd. 6521; *Increased Financial Provision for Members of His Majesty's Forces and their Families with certain Changes in War Pensions*.

private's wife with two children would now receive 60s. instead of 43s. By this stage in the war the Serviceman was pretty well off compared with his civilian counterpart.

Among civilians, too, there were considerable differences in the standard of living. Across the gulf which separated them, workers of the badly paid industries eyed with resentment neighbours and relations with higher wages earned, probably, in less dirty and less arduous occupations. The bitterness was greatest among the coal-miners. The wages and finances of coal-mining were the most difficult individual problem of financial policy in the last years of the war. We have seen how total coal production and productivity were both falling rapidly in the first half of 1942. Not least among the causes was the fierce discontent in the coalfields and the awakening of the old antagonisms which had been sleeping fitfully during the first two years of war.¹ The causes of this ill-feeling were complex and many of them were immovably rooted in the memories of the years between the wars. But early in 1942 the most important single and immediate grievance was undoubtedly wages. On a list of the earnings of some hundred industries, coal-miners then stood about fifty-ninth.² Tied by the Essential Work Order to a risky, dirty and exhausting occupation which they have always regarded with a strange mixture of pride and disgust, the miners saw neighbours from their villages and towns earning higher wages in the nearby munitions factories. In the first half of 1942, moreover, more than 36,000 ex-miners were brought back to the mines from other industries at a great loss of wages to themselves.³ At the same time, coal earnings threatened an actual fall. For an important part of mining wages was settled by the division of the disposable proceeds of the industry (that is, total proceeds less all costs other than wages) between profits and wages in settled proportions: and now, since industrial costs other than timber were rising, disposable proceeds tended to fall and wages with them.

The Mineworkers' Federation presented a claim for a wage improvement which would be more than a mere adjustment to the cost of living—a national minimum wage for adults of 85s. a week and considerable increases in shift payments. The owners' counter-proposal was that any wage increase should be partly a bonus on attendance and partly a bonus on output. At the beginning of June 1942, the Government submitted these proposals and counter-proposals to a Board of Investigation, generally known as the Greene Board. The recommendations were ready in a fortnight⁴ and were accepted. The miners' claim for a

¹ 685,000 working days were lost by dispute in the first half of 1942 against 336,700 days in the whole of 1941.

² In 1938 they were eighty-first.

³ H. of C. Deb., Vol. 380, Col. 785 (4th June 1942).

⁴ Report of the Board of Investigation into the Immediate Wages Issue in the Coal-mining Industry, June 1942.

national minimum wage was agreed and the figure was put at 85s. for all adult underground workers. The claim for an unconditional wages increase was also approved, but the increase was put at 2s. 6d. a shift for adult workers, instead of the 4s. which the miners asked. The Greene Award aimed primarily at improving the conditions of the adult mine-worker. It was indeed the first major instalment of a general revision of mining wages and raised the miner from fifty-ninth to twenty-third on the list of industrial earnings. The miners accepted the solution and the industrial troubles died away.

This Award did not attempt to relate wages directly to production. But to encourage increased production, the Committee also recommended a bonus for any increase in output beyond a certain standard. Should the bonus be based on output of the pit or of the district? A pit scheme would relate the bonus most nearly to efforts of individuals. Output at individual pits, however, often varied through underground conditions outside the workers' control, and a bonus influenced by these variations might be fruitful in disputes. The choice went, therefore, to the district bonus. It began to operate in September 1942. When the Greene Board reviewed it after a year's working, they could but pronounce it a failure.¹ In the later months of 1942 a fair number of districts had earned the bonus, but during 1943 only two or three districts out of the twenty-five had qualified. Though a failure, the output bonus could not be abolished without difficulty. Negotiations for a new kind of bonus, therefore, began and dragged on into 1944, when they were caught up into new national wage settlements.

In 1942, the Greene Board had been asked to consider not only the immediate wages issues but also the establishment of some permanent machinery in the coal industry for national conciliation over wages and conditions of work. The discontent of 1942 had shown the existing loose methods to be wholly inadequate. By the spring of 1943, a new scheme had been devised with proper machinery at the three stages of negotiation—nationally, in the districts and in the pits. Above the national negotiating committee of both sides of the industry was established a national tribunal whose three members were drawn from outside the industry; this tribunal was to be the final arbiter when agreement in the industry proved impossible.²

The new machinery was soon tested. For, by the autumn of 1943, the coal-fields were once more turbulent. Again the reasons were many and involved. Again, wages were prominent among the immediate grievances.³ The miners claimed a new minimum wage of

¹ Fourth and Final Report of the Board of Investigation into Wages and Machinery for Determining Wages and Conditions of Employment in the Coal-mining Industry.

² Third Report of the Board of Investigation into Wages and Machinery for Determining Wages and Conditions of Employment in the Coal-mining Industry.

³ The miners had slipped back to about fortieth on the list of industrial earnings.

£6 for adult workers underground, with appropriate revisions for other workers, and an adjustment of piece-work rates throughout the industry to preserve the conventional wage relations between one worker and another. In due course the claim went to the National Tribunal,¹ which awarded a minimum rate of £5 for adult workers underground with revisions for other workers; the claim for increased piece rates was refused. This award of January 1944 made arguments and passions still stormier. For in the worst paid fields, minimum rates were now raised to the point where they overlapped those of some of the better paid mine-workers; men whose rates were previously different now found themselves receiving the same rates, sometimes for entirely different work. Miners and owners began negotiations for the removal of the 'anomalies' caused by the award. These negotiations portended that general raising of wage rates which the Tribunal had tried to avoid, unaccompanied by the overhaul of the whole wage structure which it had declared to be necessary. Moreover, the negotiations went ahead on the assumption that the cost of these new rates would be met by an increase in the price of coal, despite categoric refusals by the Ministry of Fuel and Power to give any such assurance.

The situation was made more difficult by the hesitancy of the Ministry of Fuel and Power. Under the 1942 scheme of control, the Ministry was not intended to interfere with wages. However, as district settlement of wage increases proceeded apace, some more precise statement was needed from the Government about price increases to cover the rise in wages. The Lord President's Committee approved an announcement that the price of coal would be raised only to meet the Tribunal's various awards and the most obvious anomalies arising from them. This announcement, if left by itself, would merely have prolonged the trouble in the coal-fields just as D-Day preparations were growing feverish. There was only one thing to do—the Ministry of Fuel had to step boldly into the wages field and take the lead in the long-overdue radical overhaul of the structure of mine wages.

The Minister of Fuel and Power's proposals were approved by the War Cabinet and six weeks later the final agreement between owners and miners was signed. The main object of the agreement was to simplify the composition of the total wage and restore some clear line of connection between earnings and output. The main trouble arose from the war-time flat-rate advances, now amounting to some 7s. 2d. a shift, payable to all workers in and around the pit. These flat-rate additions reduced that proportion of the piece-worker's wage which depended on his personal efforts and lessened the

¹ National Conciliation Board for the Coal-mining Industry, National Reference Tribunal Fourth Award (22nd January 1944).

ratio of his wage to that of the day-wage men, although his work was the real key to coal output. The new agreement therefore abolished all the flat-rates payable to piece-workers, except the war-time cost-of-living bonus, and merged them into the piece-work rates; the output bonuses also disappeared. While the day-wage men continued to receive the flat-rate additions, the piece-worker now depended for his earnings upon his efforts. The agreement, moreover, gave some security to the miners, for it was to last four years. This reform of mining wages was of great importance in the history of coal-mining. It was not, however, a complete overhaul of wages; it did not seek, for example, to alter classifications. It had, after all, been designed mainly for war-time ends—to check the prevalent unrest and to stop output from falling below essential war-time requirements. In these immediate aims it was successful.

The war had brought great changes in the miners' earnings—the average rose from £2 15s. 9d. in 1935 to £5 9s. 4d. in 1944. By the autumn of 1944 the mine-workers' earnings were inferior only to those in some highly paid munitions trades where earnings were increased by extensive overtime. Coal was never subsidised and the wage increases were fully reflected in the rise in coal prices. A typical household coal cost 77s. 9d. a ton in April 1945 against 51s. 6d. in 1938.

Increases in the price of coal, however, by no means solved all the financial problems of the industry. For within the coal industry there were the widest variations in cost from pit to pit and from district to district—variations which had been petrified by the pre-war system of minimum prices and maximum output quotas in the districts. In 1938, for example, the average cost per ton of coal in the lowest priced district, Leicestershire, was 13s. 8d. and in the highest priced district, Cumberland, 20s. 3d., the average for all districts being 16s. At the beginning of the war the Government had hoped to maintain the financial *status quo* in the industry and, in view of the unfortunate experiences in and after the 1914–18 war, to keep its control of prices as remote as possible. Before long, it seemed clear that such a hope rested on faith rather than on reason. The outbreak of war upset coal marketing arrangements and it was necessary to meet certain extra costs and assist collieries in danger of financial ruin by levies on each ton of coal. At first these were managed by the industry, but in June 1942 the Government took the levies over. They were paid into a Coal Charges Account which was to be used with the approval of the Treasury for any purpose connected with the production or marketing of coal.¹

The Government thus became openly and directly implicated in coal finances in spite of its original intention to steer very clear of them. The Account was barely established when the Greene Award

¹ *Coal Charges Account*, Cmd. 6617. April 1945. Coal (Charges) Order, 1942.

was made. This big increase in wages would of course bear most heavily on districts with a low output per shift and widen still further the gap between the costs of different districts. Again there arose those general problems which had been faced earlier in the war in agriculture, transport, iron and steel and other industries. How could high-cost producers be kept in existence without raising intolerably prices and the profits of low-cost producers and without destroying the incentives to efficiency? The earlier Necessitous Undertakings Scheme to help individual collieries that were financially broken could hardly be extended to whole districts. The Government decided in June 1942 to increase the coal levy and with it the price of coal and to pay to each colliery individually the actual cost of the Greene Wages Award. Other increases in wage costs were met in the same way. Costs other than wages were also increasing and again were heaviest in districts where output was falling fastest. To pay all these additional costs to each colliery individually would soon destroy whatever competitive incentive remained in the industry. A price allowance scheme was therefore evolved which eliminated competition between districts but enabled it to persist between pits within each district. District standard credit balances per ton of coal were agreed.¹ The difference between the standard and actual balances was then paid quarterly from the Coal Charges Account to individual collieries on the tonnage they had sold. By these means the increased costs of the individual districts were met by increases in price spread over the whole country. Requisitioning of the mines might well have made not only production control but also financial control much easier. But the politics of coalition having ruled it out, the Coal Charges Account provided perhaps the best kind of compromise between stabilising the industry's finances and keeping some incentive to efficiency.

This chapter has made it plain how inevitable was the interlocking of the Government's financial policy with its industrial and social policies. The amount of space given to the finances of the coal industry will not surprise anybody who remembers that it was this industry which first confronted the Government with the problems of wages policy and with the threat of a vicious inflationary spiral.² There continued throughout the war, in consequences no less than in causes, a significant relationship between the coal industry and the general financial trends of British war economy; the rise in the price of coal was, indeed, one of the biggest changes that the war brought to British industrial costs. In a degree only less marked, the structure of wages, profits and prices in other particular industries—agriculture was a notable example—had throughout the war to be adjusted

¹ They varied from 6d. to 2s. 6d. and averaged out at 1s. 6d. for the industry as a whole.

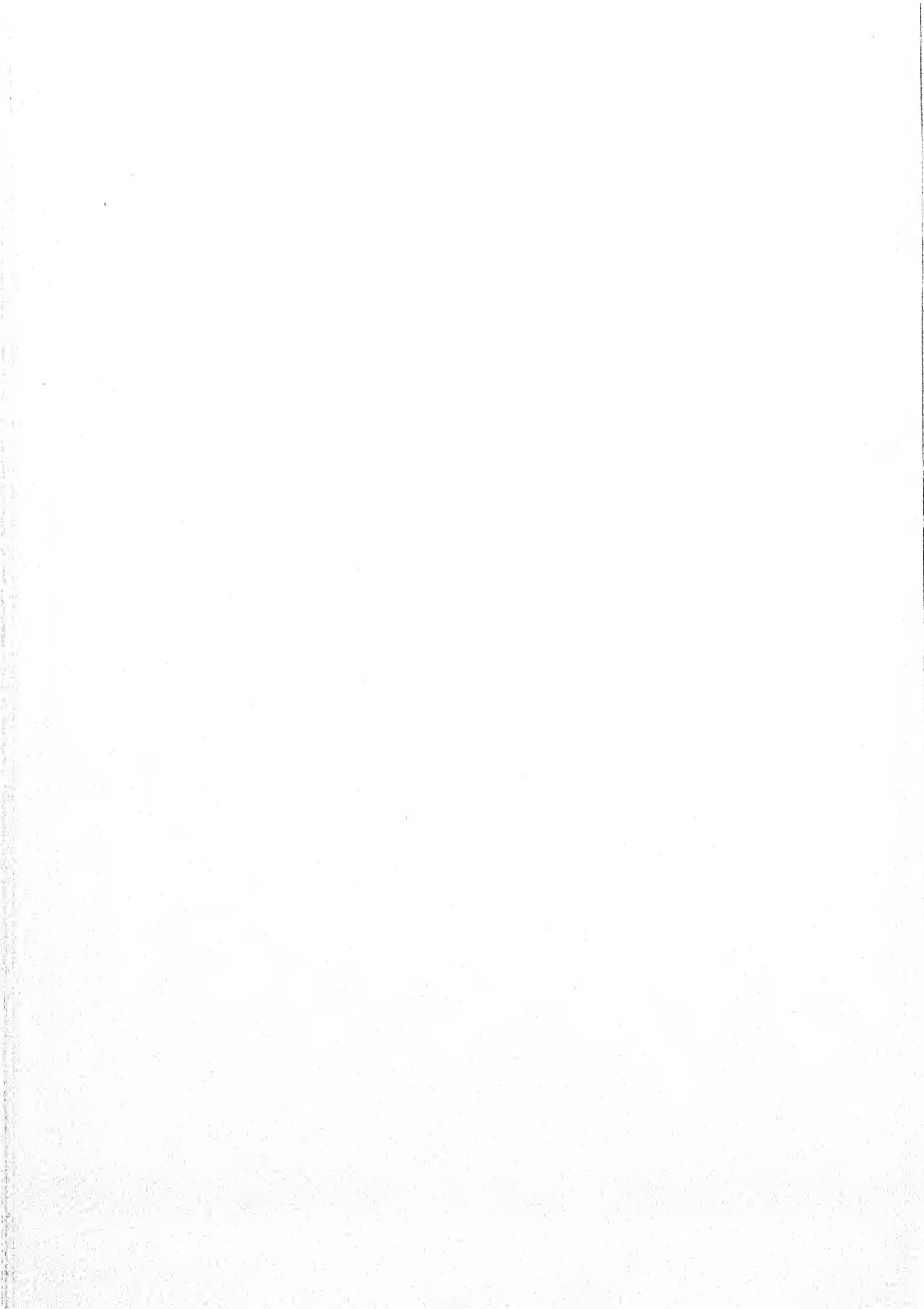
² See Chapter VI, Section (ii), especially pp. 163, 164.

continually to the general design of the Government's financial policy; or *vice versa*. The same continuous adjustment was no less necessary in the social sphere; that is why so much attention has been given in this section to questions of soldiers' pay, the rationing problems which were entangled inextricably with price control, and even humdrum difficulties about the production and distribution of furniture or pots and pans. The financial policies of the Government throughout the war were always 'impure' in the sense that they were interwoven with the manifold intricate threads of the nation's economic and social life.

Nevertheless, it is essential in summing up to emphasise the fact that the Government's financial policy had a very clear design and that it achieved very great success. If in this section attention has been concentrated upon special problems, and these the more difficult ones, this is because the main principles were no longer a matter of debate; they had long since been established and vindicated. That 'level economy' which had been sought at the beginning of the war had been achieved—not statically, but as a balance regulating and facilitating the unprecedented thrust and drive of the nation's economic energies.

The Government succeeded in its efforts to hold the economy steady under immense inflationary pressure. Inevitably, the symptoms of inflation that were visible in the months before Pearl Harbour¹ grew more evident as the war effort grew. Wage rates and prices outside the subsidised cost-of-living index continued to rise. Personal expenditure still spilled over on to tobacco, drink and entertainments. Stocks were depleted. There were queues, sales 'under-the-counter' and black markets. But these symptoms never became really alarming. They never threatened serious obstruction to the war economy nor did they engender the social bitterness that had marked the First World War. There was general recognition that the cost of the war, in terms of reduced civilian standards, was being spread justly—or at least with that rough justice which was the most the nation expected. The achievement was great; but it must be remembered how complicated was the system on which it rested. No simple formula had been found for keeping the economy steady. Very high taxation, new forms of taxation, price control, many forms of production control over finished goods, labour and raw materials, many forms of rationing and distribution schemes were all essential parts of the system. Yet the structure was not so rigid as to stifle the will to produce. In spite of the complexities of control, much was still left to the restraint and goodwill of the citizens. They saved, they practised the principle of 'fair shares' which they preached and they worked very hard without examining too grudgingly their rewards.

¹ See p. 343 above.



PART V

After Normandy

CHAPTER XVIII

STAGE TWO

(i)

The Task Ahead

EVER since Pearl Harbour the British and American Governments had fixed their combined strategy within a framework of time. *Stage I* would end with the overthrow of Germany; *Stage II* with the overthrow of Japan. After *Stage II* would come *Stage III*—full reconversion of the war economies to the purposes of peace.

The habit of giving a precise name to each of these three stages was formed only gradually and the precision of definition was never exaggerated. It was never imagined that any single stage was by itself a completely separable slab of time; continuity between all three stages and some overlap from one to another were invariably assumed, both in strategy and economics. For example, it had been decided at the Washington Conference in the new year of 1942 that the defeat of Germany must be the first aim of Anglo-American strategy; but it was also immediately essential to stem the Japanese advance in South-East Asia and the South-West Pacific. On the agenda of each successive conference a prominent place was given to the war against Japan. Defensive battles in the Far East were fought and an offensive strategy succeeded them. At the height of the Normandy battles, a great concentration of American power was already forcing its way northwards from the Australian bases, while in South-East Asia the British Empire had already assembled land forces to the strength of fourteen divisions.¹

Normandy was the climax, not the end, of *Stage I*. Yet even by then, it will be recalled, British mobilisation had passed its peak. The following manpower figures, reproduced from the statistical summary, show the trend quite clearly:

	Thousands	
	<i>Mid-1943</i>	<i>Mid-1944</i>
Armed Forces	4,758	4,968
Civil Defence, etc.	323	282
Munitions Industries	5,233	5,011
	10,314	10,261

¹ The actual date for this figure is 1st July 1944: the number of divisions or their equivalent is approximate.

The total number of men and women in the most direct forms of war activity was falling and the strength of the armed forces could be maintained only at the expense of civil defence and the munitions industries. This decline in total mobilisation, trifling though it seemed in its beginnings, was bound to gather momentum; the inflow into the manpower pool could not possibly replace the continuous wastage.

It was fortunate that as British mobilised strength began to decline the American war effort was climbing to its prodigious peak. Even so, the slow waning of British strength might well have had serious results if the battles in France had been less successful and if the war against Germany had been indefinitely prolonged. Fortunately, the British Government knew by the end of 1944 that, although the manpower available for the British war effort was shrinking, the strategical task itself would soon be far lighter. Stage II could not be long delayed.

Mobilisation of the British economy for war has been, up to the present, the central theme of this book; but within two years from the end of the war a new theme—the *redistribution* of resources within the war economy—takes the central place. We are unable to pursue this theme in all its aspects. As ever, the adjustment of British war industries to new demands of strategy falls within the sphere of the historian of war production. Hitherto, we have attempted in each Part of our book at least an outline of the shipping problem; but this time we shall not venture to entangle ourselves in the highly technical and intricate processes of assembling shipping from all over the world in support of offensive operations in the Far East. However, we shall find the problems of external payment returning to a central place in our inquiry. We shall, moreover, continue our study of manpower budgeting, whereby the redeployment of the nation's labour force was centrally planned. This remains for us a main guide in our mapping of Stage II, where our chief concern will be the total reduction of economic effort which might be expected to follow from the capitulation of Germany.

Some reduction there was bound to be. An attack of maximum intensity against Japan would certainly make heavy demands upon the Navy, the R.A.F. and the merchant navy; but although big land forces were required in South-East Asia, the Far Eastern land fronts could not possibly absorb the great armies spread through Europe and Africa. In consequence, Stage II promised some relief to the United Kingdom's overstrained economy.

The extent of this relief depended largely upon Britain's share in the military tasks of Stage II. This was a matter to be agreed with the United States. Some people in the United States had been upbraiding the British for their alleged intention of leaving the Americans to bear the brunt of battle, once Germany had been beaten. Other people (but, indeed, they were sometimes the same) were

anxious to crowd the British out of the Far Eastern war and make the final overthrow of Japan a national rather than a combined triumph. But to the British Government it seemed essential that the United Kingdom should play a significant part in the war effort of Stage II. Any other decision, the Prime Minister argued, would be prejudicial not merely to the interests of the British Commonwealth but to the future of collaboration between the three great world powers and in particular to those good relations—'on which so much depended'—between the British and American peoples. The United States Government thought the same. At the 'Octagon' Conference held at Quebec in September 1944, it was agreed that the British should concentrate on clearing the enemy from Burma and Malaya and that a British fleet should share with the United States fleet the major operations against Japan. Assistance from the R.A.F. in bombing Japan was also envisaged.

The relief to the United Kingdom's economy would therefore be smaller than what might easily have been secured by a more moderate assessment of the nation's duty in the Far Eastern war. When would the relief begin to operate? How long would it last? Stage II would not open until Germany was defeated. When would that be? The forecasts fluctuated with the fortunes of war. From January 1943 to March 1945 the hypothetical terminus of Stage I was officially redefined half a dozen times:

1st December 1943—end of 1944.

15th June 1944—not beyond 30th June 1945.

4th September 1944—by 31st December 1944.

25th October 1944—by 30th June 1945.

25th January 1945—between 1st July and 1st November 1945.

29th March 1945—by 31st May 1945.

The assumptions about the duration of Stage II changed less frequently. For a long time the standing estimate was that the Japanese war would last for three years after the end of the German war. In April 1944 this figure was reduced to two years. After the 'Octagon' Conference in September 1944, eighteen months was the constant assumption for the length of Stage II.

The United Kingdom's war effort in Stage II would be large and possibly long-continuing; but it would certainly be smaller than the effort demanded in the last years of Stage I. Despite this, the Government now found itself compelled to count the costs of effort far more anxiously than it had done when national mobilisation was still being pushed to its peak. Before Normandy, it was hard to think beyond the military consequences of effort; after Normandy, the economic consequences insistently challenged thought. By 1944, five years of war—four of them intense—lay behind Britain. Ahead lay

not only Stage II but Stage III—that is to say, peace. Statesmen could no longer treat the economic prospects of their nation in peace as a remote problem of subordinate importance. They were compelled to take stock of what the nation's war effort would cost—of what it had cost already. Britain, by her sacrifices in the war, had put her peace-time future in jeopardy.

Amidst its preparations for continuing the war in Stage II, the War Cabinet found itself ever more deeply involved in study and estimations of the aftermath. Planning for Stage II became inevitably intertwined with planning for Stage III. We shall now proceed to consider in some detail this twofold process.

(i i)

Britain's Dilemma

The British were anxious to take a substantial share in the Far Eastern war; but this would not by any means comprise the whole of their military burden in Stage II. There would also be heavy demands for soldiers and their equipment for occupying Europe and policing the Middle East.

It was difficult to estimate just how big a claim all these demands would make upon the national economy. Until the 'Octagon' Conference, the United Kingdom's strategic commitments in the East remained very unsettled. Moreover, nobody knew how much economic help the United States would give once the war in Europe was over. All the same, some estimates had to be made, however tentative they might be. Early in 1944, after the Chiefs of Staff had calculated the size of the forces needed to carry on a war against Japan after the defeat of Germany, the Joint War Production Staff tried to see what this calculation would mean in terms of manpower for the Forces and the munitions industries. It seemed that the figures, when added up, meant that at the end of the first year of Stage II the Services and munitions industries would need to be at seventy-five per cent. of their strength at the end of 1944. This was the same as their level in mid-1941. The figures assumed help from the United States and Dominions equivalent to $1\frac{3}{4}$ million workers, as compared with the equivalent of about 2.9 million workers at the end of 1943.

These estimates seemed alarmingly high. Later in the year, after the British part in the Far Eastern war had been more precisely determined, the forecasts of the necessary level of mobilisation were moderated. Now it seemed that, on the most favourable assumptions

about aid from abroad, the level of the Services and munition industries at the end of the first year of Stage II would need to be about fifty-six per cent. of their level at the end of 1944.¹ Measured in terms of manpower, this scaling down of the requirements of the Services and the munitions industries seemed at first sight to promise great relief to the overburdened British economy; 4½ million workers would be relieved from direct war employment. But, after allowing for losses of manpower through casualties, annual wastage, the release of women with household responsibilities, and some increase in transitional unemployment, the net increase in manpower available for the civilian sector was expected to be only about 2.6 million by the end of the first year of Stage II.

The addition to civilian resources might still appear appreciable; but it was very small in relation to all the urgent demands that would crowd in upon the civilian economy during Stage II. By the autumn of 1944 the United Kingdom had been at war for five years and had, as the phrase went, 'expended itself' in the common effort. It was absolutely indispensable that the country should be given at last some easement of its burden and the opportunity to make some preparations in Stage II for the colossal task of reconstruction awaiting it in Stage III. The particularly urgent needs were three: first, some easement of civilian living standards; secondly, some rebuilding of capital equipment; thirdly, and most urgent of all, some expansion of exports.

There was no expectation nor claim that civilian living standards should return in Stage II to the pre-war level; but some mitigation of the existing strain was held to be essential.

The British civilian [so ran an explanation to the Americans] has had five years of blackout and four years of intermittent blitz. The privacy of his home has been periodically invaded by soldiers or evacuees or war workers requiring billets. In five years of drastic labour mobilisation, nearly every man and every woman under fifty without young children has been subject to direction to work, often far from home. The hours of work average fifty-three for men and fifty overall; when work is done, every citizen who is not excused for reasons of family circumstances, work, etc. has had to do forty-eight hours a month duty in the Home Guard or Civil Defence. Supplies of all kinds have been progressively limited by shipping and manpower shortage; the queue is part of normal life. Taxation is probably the severest in the world, and is coupled with continuous pressure to save. The scarce supplies, both of goods and services, must be shared with hundreds of thousands of United States, Dominion and Allied troops; in the preparation of Britain first as the base and then as the bridgehead, the civilian has inevitably suffered hardships spread over almost every aspect of his daily life.

¹ The average level for the first year of Stage II would of course be much higher—about seventy-seven per cent.

This was the price of total war which the British people were well satisfied to pay. But the cumulative effect was a severe strain. It was felt to be reasonable and necessary that the United Kingdom should permit itself, by the end of the first year of Stage II, to restore production in the general field of civilian consumption goods from the 1944 level of fifty per cent. of the pre-war output to seventy-five per cent. A restoration so limited would still leave many heavy burdens upon the civilian population; even so, it would call for nearly a million extra workers in civilian industry.

The second urgent need was to make a start in the repair and replacement of the nation's capital equipment. By 1944, this could hardly be much further postponed, whether the German war ended or not.¹ There were two especially strong claims upon additional resources. One was housing; by the autumn of 1944 bad housing, especially in the London area, had become one of the gravest handicaps to efficiency. The other was industrial and public utility maintenance. We have already seen the difficulties of the railways. Repair and maintenance had also been purposely neglected in such important industries as iron and steel, chemicals, textiles and the generation of electricity. Indeed, much plant was already in a condition in which continued working depended on a substantially increased allocation of manpower to provide for proper overhaul and repair. The total manpower requirements for absolutely essential restorations of the nation's capital equipment by the end of the first year of Stage II were formidable. For building needs, the estimate was about half a million extra workers;² for the maintenance and renewal of plant, the estimate approached three-quarters of a million extra workers.

Third and outstanding among the United Kingdom's 'civilian' tasks in Stage II was the recovery of the export trade. This was, in sober truth, a matter of national life and death for a nation of 47 million people crowded into an area one-third the size of Texas. The intense mobilisation of military and industrial strength that the nation had achieved would not have been possible if its own efforts at home had not been supported by supplies from overseas. Large quantities of these supplies had come from American lend-lease and Canadian mutual aid; but other large quantities had been procured by sacrificing claims on imports which had been earned in the past and by incurring debts which represented future claims upon British exports. Meanwhile, the volume of exports had been depressed to below one-third of their level before the war. The balance sheet that the Government was studying in the autumn of 1944 could hardly have been gloomier. The assets sold amounted to about

¹ cf. Chapters XVI and XVII.

² Even with this increase, the labour force in building and civil engineering, would be over 200,000 less than the number in employment in these trades in mid-1939.

£1,000 millions; the external liabilities incurred totalled over £3,000 millions.¹ And the nation's capacity to earn the means of foreign payment from day to day and month to month was gravely impaired.

The heaviest liabilities incurred during the war were to India, Egypt and other countries of the Middle East where there had been a great outpouring of expenditure whether on troop pay, the building of airfields, railways or roads, payment of local labour or the purchase of supplies. Although some of these liabilities might be funded or even possibly written off, there remained a very large balance which the countries concerned would wish to use when the scarcities of goods and shipping no longer restricted them. Repayment would have to take the form of direct British exports additional to those required to pay for necessary imports.

The volume of exports needed to pay for imports would be very great. When allowance was made for the decline in other sources of external earnings, it appeared that at least a fifty per cent. increase over the pre-war volume of visible exports would be necessary in order to pay for the pre-war volume of imports.² And this increase of exports, as has already been said, must start from a base more than seventy per cent. lower than the 1938 level. Even after full allowance was made for lend-lease and mutual aid from Canada, the United Kingdom's visible exports in 1944 were not sufficient to finance one-seventh of its remaining current overseas requirements. Obviously, something must be done soon in preparation for the day when lend-lease and mutual aid would be withdrawn. In 1944 that day seemed more distant than it really was; but even then it was impossible to deny the need for making a start on recovering and expanding exports. The Government hoped that in the first year of Stage II, exports would be about double the 1944 level, or about sixty per cent. of the pre-war volume. This would mean an increase of nearly a million workers on exports by the end of the first year of Stage II.

It is now time to add up the total of the manpower required for the three urgent purposes that have been enumerated—exports, some restoration of housing and capital equipment, a severely limited easement of depressed civilian standards. With a few miscellaneous items added, the total requirements of labour came to 3.4 millions. The total supply in sight was 2.6 millions.³ The sum did not work out. For a nation which had inflicted upon itself so ruthless a distortion of its economic life, the requirements that have been listed were modest indeed; they were no more than 'make do and mend'. Yet they would have to be cut: or else the programme for the war against Japan would have to be cut. The United Kingdom's dilemma might

¹ Cmd. 6707.

² The figure of 50% assumed no alteration in the pre-war terms of trade.

³ See p. 519.

indeed become more painful still. For the figures summarised above had been constructed on very favourable assumptions about the continuation in Stage II of lend-lease supplies. Would these assumptions be justified or refuted?

By the end of 1944, it had become a matter of extreme urgency to get these issues settled in discussion with the Americans. In preparation for the discussion, the British Government had to get them clear in its own mind. Were the economic difficulties that confronted it something for which it need apologise? If this were so, it must apologise because Britain had for year after year fought the war too hard. A lower target of military endeavour in Stage II would mitigate present difficulties, but could not cure them; they were the ineluctable consequence of the limitless endeavour to which Government and people had committed themselves in the summer of 1940. Ever since then, Britain's military effort had been discordant with her economic strength; the resources necessary for victory could not be mobilised without casting away resources necessary for the nation's livelihood when victory was achieved. This had been the United Kingdom's dilemma throughout five years of history which could not now be rewritten. The point was forcibly put by Lord Keynes in the United States. The British war-time story, he wrote, was one

of financial imprudence which has no parallel in history. Nevertheless, that financial imprudence may have been a facet of that single-minded devotion without which the war would have been lost. So we beg leave [he added] to think that it was worth while—for us, and also for you.

Could the sale of investments, by these tests, be called imprudent? And what of the weight of external debt? The British, when they stood alone, had felt that for themselves at least the future must be entirely sacrificed to the overwhelming needs of the present. They had borne the main cost of the war over a vast area stretching from North Africa to Burma. If they had stinted their expenditure they would have been unable—to cite but one example—to hold Rommel at one of the critical moments of the war.

In a war allegedly governed by the concept of the pooling of resources among Allies, the British had taken upon themselves a sacrifice so disproportionate as to jeopardise their economic survival as a nation. So far as external payments went, that sacrifice was already at its extreme limit when lend-lease was introduced. Lend-lease eased the burden upon the balance of payments; the British used this easement to put upon their own backs a still heavier burden of national mobilisation. It was on the strength of lend-lease that they had sacrificed the export trade upon which, when peace returned, they would depend for daily work and daily bread.

The level of lend-lease supplies during Stage II was clearly the first matter which must come up for discussion at Washington.

If a satisfactory agreement were reached on this point, it would see the United Kingdom through Stage II. But in preparation for Stage III the British must begin to pay their own way. The British believed it essential to raise their exports by the end of the first twelve months of Stage II to a level one-third below that of 1938. This ambition was not extravagant; but if it were to be achieved, it was necessary that the United States should cease to attach to their supplies under lend-lease conditions which jeopardised the recovery of the British export trade. The lend-lease white paper of September, 1941,¹ would have to be withdrawn.

There was a third problem of equal significance for British solvency on international account. This was the problem of gold and dollar reserves. At the outbreak of war, net reserves were valued at rather more than £600 millions. By the time the Lend-Lease Act was passed, the reserves were practically cleaned out. Largely as a result of the quartering of United States troops in the sterling area, the net reserves showed a substantial rise after Pearl Harbour;² by the end of 1944 they were about £420 millions.³ Even this figure was very low when compared with the figure for external liabilities. It was essential that Britain should hold substantial gold and dollar reserves at the end of Stage II; they would be needed to provide a minimum reserve against grave contingencies, working balances to cover short-term requirements in international trade, reserves against the needs of the sterling area, and a means of paying for part of the inevitable deficit in the United Kingdom's balance of payments in the early part of Stage III. It therefore became a cause of great anxiety when, in the last half of 1944, the United Kingdom's gold and dollar reserves threatened to fall once more owing to the reduction in the numbers of American troops stationed in the sterling area. If no remedial measures were adopted, it seemed likely that the British Treasury would enter Stage III with reserves of possibly not much over £250 millions; with liabilities perhaps nearly fifteen times greater; and with a cumulative adverse balance on current account in the first three post-war years that could scarcely be put at less than £1,000 millions. This did not seem the proper outcome of the sacrifices and efforts of the British people. It did not seem consistent with the principle of pooling that had governed so many Anglo-American policies. Nor did it seem politically wise: on the contrary, it might well be dangerous if one of the major Allies should enter the period of pacification,

¹ See p. 245 above.

² This troop pay was the important new source of dollar earnings. In addition, the United Kingdom continued to acquire gold against sterling from South Africa.

³ Cmd. 6707.

resettlement and reconstruction unable merely on financial grounds to take its national part in the sharing of duties and tasks. His Majesty's Government wished therefore to establish that it was in the mutual Anglo-American interest that the British reserves of gold and dollars should not suffer by the end of 1945 any significant deterioration below its level at the autumn of 1944.

There was clearly a wide field for discussion between the United States and the United Kingdom.

(iii)

Anglo-American Negotiations

Britain's three major Stage II problems—the level of gold and dollar reserves, export freedom and the future of lend-lease supplies—were all very closely connected. In the autumn of 1944, they were all brought together at Washington. This section will review the course of the Washington negotiations, the agreements that were made, and the sequel to those agreements. Before doing so, however, it must survey in retrospect the earlier Anglo-American discussions on each of the three problems taken separately.

The original doctrine of the Lend-Lease Act had been formulated at a time when the United States were still neutral. Behind the Act was the emotional drive of the campaign 'to defend America by helping the Allies'—'all aid short of war'. This meant a very great deal at a time when the British Commonwealth stood alone in its fight against the Axis powers; but it fell short of that complete pooling of resources which became the official doctrine when America's very benevolent neutrality towards Britain was transmuted into an unlimited war partnership. As has been shown earlier, the doctrine of pooling became an important reality in many physical resources.¹ But there was never any comparable pooling of financial resources. In the field of finance, it was not the doctrine of the mature war partnership, but the earlier doctrine of lend-lease, that reigned. This fact had important implications for the level of Britain's gold and dollar reserves.

These reserves had been exhausted when the Lend-Lease Act came to the rescue; moreover, heavy external liabilities had already begun to pile up. Between 1941 and 1944, the dollar earnings of the sterling area increased, largely as a result of heavy expenditure by American troops in the United Kingdom and throughout the sterling area. The United Kingdom therefore accumulated new reserves, though far

¹ See Chapter XIII, section (ii).

more slowly than it was accumulating new external liabilities. In Washington it was recognised that reasonable reserves were an essential part of the financial and economic mechanism of the United Kingdom's trading relations with a large part of the world; nevertheless, lend-lease was still regarded even after Pearl Harbour as a means for providing the British with those necessary 'defense articles' that they could not procure themselves. It was felt that lend-lease could not be defended before Congress if it permitted British reserves to rise indefinitely. The rise would have to be curbed.

The British felt this doctrine was wrong. They could point out that the reserves of the other Allies who were receiving lend-lease—notably Russia—did not receive the same critical scrutiny. They also felt, even more strongly, that the mountain of external debt they were shouldering was an inescapable necessity of the war. Unless the growth of their liabilities, which were expressed in sterling, was offset by the maintenance of minimum gold and dollar reserves, countries normally willing to hold sterling might well become apprehensive to the point of withholding supplies. On the other hand, American opinion maintained that the external liabilities were largely towards the Dominions, India or non-belligerent members of the sterling area and that American generosity could not be called upon to compensate for a lack of comparable generosity within the sterling area.

This doctrine could not be pushed to a logical extreme. The United States might have set an artificial ceiling on the United Kingdom reserves. But to do this they would have had to make a very sharp cut in essential lend-lease supplies or to ask the United Kingdom to meet the cost of the American troops throughout the sterling area.

The growth of British reserves could not be stopped; but it could be restricted. From the discussions that continued throughout 1943, various new restraints emerged. First among them was the demand for an increased contribution from the British Empire under the head of reciprocal aid. Secondly, the scope of lend-lease was narrowed.

The flow of reciprocal aid from the British Empire to the United States had begun voluntarily, in fact if not in name,¹ even before Pearl Harbour. After Pearl Harbour it was rapidly increased; but it did not include raw materials and foodstuffs from the Colonies and Dominions. In the summer of 1943, the Americans proposed that they should be henceforward included. They also proposed that figures of reciprocal aid should be published.

Hitherto, the British Government had been, for various reasons, averse from collecting or publishing any particulars of reciprocal aid. To keep accurate records meant building up new staffs; it seemed impossible to put authentic figures of money value on some important

¹ The Mutual Aid Agreement of the spring of 1942 recorded an accomplished fact.

items;¹ above all, it seemed undesirable to reintroduce dollar and sterling signs into mutual aid. These objections had considerable weight; but in the summer of 1943 the War Cabinet decided that it was still more desirable to make known the great and growing importance of reciprocal aid. It therefore authorised the preparation of a white paper giving the facts.² At the same time it agreed that raw materials from the United Kingdom, the Colonies and Southern Rhodesia should be given as reciprocal aid. The United States Government would also be invited to suggest a similar arrangement to the Governments of the Dominions and India.³

In meeting these requests from the Americans, the British Government believed that it would be furthering the principle of pooling, which was in general terms accepted on both sides. But another and indeed almost contradictory objective—that of curtailing the growth of British gold and dollar reserves—had not disappeared from the American scene. This problem was now attacked from the lend-lease side. In October 1943, the United States declared that capital goods such as industrial equipment, machine tools, materials and equipment for petroleum production were no longer eligible for lend-lease; a few months later there were discussions with the Foreign Economic Administration⁴ over a longish list of 'questionable' lend-lease items. These measures reflected the continued belief in Washington that Congress would be critical of charges on the American economy which would enable the United Kingdom to build up its reserves or develop at the expense of the American taxpayer British export industries which would compete directly with American exports. In 1944, the Lend-Lease Act would have to be renewed and a presidential election was to be held. These facts doubtless influenced the detailed action of numerous Washington departments with which the British Government was conducting lend-lease operations.

Side by side with the negotiations about reserves and the scope of lend-lease and reciprocal aid, there had been negotiations about superseding the 1941 white paper on export policy.⁵ This white paper had been published well before Pearl Harbour and was a unilateral declaration of British policy. In Washington, however, it was always regarded as a binding agreement which the United States were entitled to interpret and to police. There were, understandably enough,

¹ e.g. the value of new designs and certain fundamental research.

² *A Report on Mutual Aid*, Cmd. 6483, November 1943: cf. the Second Report, Cmd. 6570, November 1944 and the Third Report, Cmd. 6931, October 1946.

³ The arrangements with Australia and India provided that they would supply raw materials under reciprocal aid; but part of the cost was in certain contingencies to be borne by the United Kingdom.

⁴ In September 1943, the Office of Lend-Lease Administration became a subordinate department of the new Foreign Economic Administration.

⁵ See above, pp. 243–246.

fluctuations of tightness and relaxation in the interpretation of British obligations under the white paper. But even at the height of the war, when the quantity and direction of the British export trade were largely governed by shortages of goods and ships, the white paper restrictions were burdensome. They would become intolerable if they were allowed to persist into the days when British industry would have spare pockets of capacity which might be devoted to the export trade. The problem was very delicate both for the United States Government and the United Kingdom Government; so much so that the protracted negotiations which began in August 1943 had not reached a satisfactory conclusion by the summer of 1944. By then, Stage I was drawing to its close and it was time for the wider discussions about the whole formidable problem of Stage II. It was therefore tacitly agreed to adjourn the white paper discussions and bring them within the general Stage II talks.

The need for these wider talks was becoming urgent. Since the spring of 1944 a good deal of thought had been given on both sides of the Atlantic to the principles that should govern lend-lease aid to the United Kingdom in Stage II. The British were feeling towards the idea that munitions should be on a proportionate basis: lend-lease aid in Stage II, that is to say, would bear the same relation to aid in Stage I as the British war effort in Stage II bore to the war effort in Stage I. No such formula could be applied to non-munitions. These needs in total would also be lower; but clearly Britain required, for instance, just as much food to fight Japan as to fight Germany. On one point the British were emphatic: they were resolved that no encouragement whatever should be given to any suggestion that would involve Britain in a debt to the United States arising out of Stage II.

An opportunity for airing the whole subject officially arose when the 'Octagon' Conference met at Quebec in September 1944. There, the Prime Minister expressed his hope that the President would agree that, during Stage II, the United Kingdom should continue to get food, shipping and so on from the United States to cover its reasonable needs. He hoped that munitions aid would continue on a proportionate basis even though this would enable the United Kingdom to set free labour for rebuilding exports and urgent home needs. The President agreed, with the reservation that it would be better to work on figures than a proportionate basis. He affirmed, moreover, that all these supplies would naturally be on lend-lease. The Prime Minister said that obviously no articles obtained on lend-lease or identical thereto would be exported or sold for profit; but he emphasised how essential it was that the United States should attach no conditions to lend-lease supplies that would jeopardise the recovery of Britain's export trade. The President thought that this too would be proper.

As a result of this conversation an agreement was initialled by the President and the Prime Minister. This agreement established an Anglo-American committee to consider the scope and scale of 'Mutual Lend-Lease Aid' in Stage II and to recommend the amounts to be provided. The Committee was to be guided in its deliberations by the conversation between the President and the Prime Minister.

This Quebec directive was very brief and was capable of different interpretations both in principle and in degree. Nevertheless, it seemed to the British that the discussions had been given the impulse they needed and focused in accordance with the right principles.

The combined committee assembled in Washington in October. The American members were headed by Mr. Morgenthau, Secretary of the United States Treasury, and the British members by Lord Keynes, who represented the Chancellor of the Exchequer.¹ The British members had decided to present their requirements under every head as part of a fully documented case which would vividly picture the British economy, the extent of the nation's sacrifices and the seriousness of its financial position. It was thought essential that the American officials, many of whom were entirely ignorant of the realities of the British dollar and sterling position, should have this knowledge. Lord Keynes indeed expressed his conviction that 'in the past we have made a great mistake and handicapped our representatives in Washington by an economy of information. So-called "reasons of security" must be reckoned at least as one of the minor, if not sometimes a major inefficiency of the machine of war.' The decision to present a full written document was amply justified. The Americans welcomed it and—to quote Lord Keynes again—it 'won over to our support an army of honest Ministers and clever heads scattered all over the administrative area.'

The British document affirmed four basic principles. These were:

1. Lend-lease munitions should be sufficient not only to provide the categories of requirements that the United States alone could produce in time, but also to make possible the release of manpower in the United Kingdom.
2. The British civilian was entitled to some easement in living conditions both by releasing manpower for civilian production and also by a lend-lease programme, especially for food, which would allow some raising of standards.

¹ The British delegation was most ably supported by the British Civil Secretariat which acted as a Cabinet Office in embryo in Washington and by the British Supply Council and the missions in Washington. Lord Keynes wrote, 'I venture to say that we have never had a more brilliant effective team than were assembled [in Washington] this autumn under the captaincy of Mr. Ben Smith . . . The present members of the British Supply Council have been serving the State in exhausting and exacting conditions with a mental and moral stamina which is beyond all praise.'

3. There should no longer be any restrictions on the recovery of the British export trade.
4. It was in the mutual interest that the British reserve of gold and dollars—already dangerously inadequate—should not deteriorate any further.

The first three principles were explicitly in accordance with the Quebec agreement. It was to prove a disadvantage that the last principle also had not been discussed and agreed there. New figures that had been gathered after the Quebec Conference made it plain that the strengthening of British reserves was growing increasingly urgent.

The affirmation of these four principles was reinforced by detailed information about the United Kingdom's external finances, its civilian living standards and its manpower problem.¹ We have already told this story in the first section of the present chapter. We need not tell it again and shall therefore proceed at once to the specific requirements that were set down in the British document.

First were the munitions requirements.² These were put forward in detail. They were based on the agreed military tasks and the size of the Forces needed to fulfil them. They assumed that Stage II would begin on 1st January 1945 and last for eighteen months. They had been calculated after taking account, among other things, of probable stocks of munitions, existing capacity, the fact that many types of equipment were made only in the United States and the limited manpower resources of the United Kingdom. The total known munitions requirements under lend-lease in the first year of Stage II added up, in money terms, to about fifty-four per cent. of the 1944 total. In the interests of coherent economic planning, both in the United States and the United Kingdom, it was desirable that the programme of delivery should be as firm as possible. The British therefore asked that protocol status should be given (as had always been done for Russia)³ to whatever level of supplies was agreed.

Non-munitions requirements were also put forward in detail. They were based on the principle that food, raw materials and other essential imports, in so far as they were drawn from the United States, should continue in Stage II to come under lend-lease. These supplies seemed no less part of the war effort than the direct munitions supplies. Some of them, such as oil and shipping, were used

¹ This material was reviewed in the introduction to the document and set out systematically in three appendices.

² In accordance with past practice, the munitions and non-munitions programmes submitted included in certain cases the requirements of Australia, New Zealand and India. The United Kingdom negotiators also gave, for the sake of completeness, a list of the direct demands from these countries; the negotiation of assistance was of course a matter for the United States Government and the Governments concerned.

³ See above, p. 361.

in very large measure for direct war purposes. Others, such as the supplies of food, might, to a certain extent, be procured elsewhere; but any attempt at large scale switching of British imports from America to (say) Australia was bound to impede the combined war effort. However, the British excluded from their list of requirements under lend-lease nearly all metals, minerals, chemicals and all manufactured articles for civilian use except open-cast mining machinery and agricultural machinery. By these exclusions they hoped to strengthen their case for export freedom. All in all, their total non-munitions requirements for the first year of Stage II amounted, in money terms, to about seventy-one per cent. of the 1944 total.

The third section of the British document made suggestions about methods for preventing the threatened deterioration in the gold and dollar reserves. There were two main methods. One was to re-include in the lend-lease programme certain items that had been cut out at one time or another and to add one or two others.¹ The second method was to settle certain outstanding claims over past transactions that had been held in abeyance when British balances were rising; chief among these was the claim for aircraft engines paid for in cash by the British before the inauguration of lend-lease and diverted thereafter to the United States War Department. A third method for relieving the pressure upon the gold and dollar reserves might also have been advanced—namely, the restriction of reciprocal aid. But the British were resolved to propose nothing that might in any way damage the principle of pooling, which was indeed the foundation stone of their own case.

It is not . . . difficult to take some practical measures [so ran their document] which would bring us nearer, if only a very little nearer to what the situation would have been if the principle of financial pooling could have been fully carried through.

Finally there came the request for freedom to export. The British document explained why a big recovery in exports was necessary and why a beginning must be made at once. It proposed that, as from 1st December 1944, His Majesty's Government, acting in agreement with the United States Administration, should withdraw the white paper of September 1941, so that from that date British exporters would be free unconditionally to export any article to any market. It explained in full detail under all heads the careful measures that had been taken or would be taken to ensure that British export industries received no unfair competitive advantage from American lend-lease supplies.

¹ The most important items were tobacco, 'off-shore' sugar, crude oil purchases for the Curaçao and Bahrain refineries, certain shipping expenditure in dollars, machine-tools, material for the repair and equipment of bomb-damaged houses and civilian relief supplies for liberated British territories in the Far East.

The British document, as has already been said, gave the negotiations an excellent start. The atmosphere in Washington was co-operative. On the whole, the talks went well.

To begin with munitions: the Americans accepted the British requirements, with much less question than on previous occasions, as being the proper and necessary consequence of the strategic decisions of the Combined Chiefs of Staff. The British did not have to accept any important curtailments of the demands they had brought from London except where they were themselves satisfied that a reduction could be made safely or where there were genuine supply difficulties on the American side. In the end, they secured eighty-two per cent. of what they had asked for at first¹ and ninety-eight per cent. of their amended requests. They did not, however, hold what they had secured on completely sure tenure. For some items that were likely to be scarce—nearly one-fifth of the agreed total—there was no firm commitment to supply. And the munitions undertakings as a whole did not achieve that protocol status the British had desired. Indeed, the agreement made at Washington was altogether informal. No final and formal document was drawn up for signature on both sides. The sub-committees which had been considering the Navy, Army and Air Force requirements simply sent the schedules of 'acceptances' to the main Morgenthau committee; their covering letters did not exclude the possibility of subsequent excuses and retreats. Nor was the Morgenthau committee kept in existence to serve if need be as a court of appeal. However, these uncertainties did not at that time seriously qualify the satisfaction the British felt at the outcome of the talks about munitions.

Their non-munitions programmes also went through successfully. They were piloted by the British missions in Washington, treating with their usual opposite numbers in the Administration. The Americans accepted the case for a moderate easement of living conditions in Britain. Under every head, the British received substantially what they asked, subject to the possibilities of supply. Food, for example, remained subject to allocation by the Combined Food Board; but full financial cover was obtained under lend-lease for British requirements. Unless supply impediments arose the required quantities would be allocated at the appropriate times.

The British case for the strengthening of their financial reserves did not fare quite so well; for the good intentions of the American negotiators were to some extent frustrated by circumstances beyond their control. One result of the negotiations was very satisfactory in British eyes; the 'heresy' (as Lord Keynes termed it) that lend-lease aid was excessive if British reserves rose materially above

¹ The short fall was equivalent to one year's output of 50,000 workers—quite an appreciable figure in the context of British needs.

\$1,000 million was at long last rooted out. The American delegation was convinced that new and special relief should be given to British reserves to the extent of 400 or 500 million dollars. Unfortunately, when it came down to detail, this proved impossible. 'Off-shore' sugar and civilian tobacco, the two really significant items which the British hoped to see restored to lend-lease eligibility, remained ineligible—in the one case because of a genuine shortage in the United States, in the other because of an imagined shortage.¹ The second method of relieving British reserves—by satisfying the hitherto disputed claim in respect of aircraft and munitions purchased before lend-lease and subsequently handed over to the Americans—might on this occasion have been adopted, had not the War Department discovered that the appropriation from which the claim could have been met earlier had by now expired. The Americans did their best to make good, by a surprising number of minor expedients,² these two major disappointments; but they still fell short by about 200 million dollars of the level of 400–500 million dollars which they had accepted as desirable.

Finally, there was the problem of the United Kingdom's freedom to export. In long term, this was the most important problem of all. The Quebec agreement had placed it on an entirely new footing and the United States Administration now appreciated Britain's need to restore her export trade. But the immediate problem facing the American negotiators was how to grant Britain her export freedom without antagonising politically important sections of American opinion.³ In the end, they did what was substantially necessary without full and formal acknowledgement of the necessity. The British had hoped for complete export freedom as from 1st January 1945. It was withheld in form until the end of the German war; but the British were assured that from 1st January onwards it would be granted by administrative action.

All the negotiations were completed before the end of November 1944.⁴ Their success was a good augury for the continuation into Stage II of the firm and intimate partnership which had already returned such rich dividends in the combined assault on Europe. And

¹ Tobacco leaf was not at all scarce but during the negotiations cigarettes became scarce in American shops owing to shortages of labour and packaging: it was therefore politically difficult to restore tobacco to lend-lease.

² One item for which the British were particularly grateful was the acceptance for lend-lease eligibility of a programme of emergency houses. This was a considerable stretching of the strict interpretation of the Lend-Lease Act.

³ British public opinion about export restrictions was also very restive.

⁴ The link between the Stage II talks and the discussions that led up to the Anglo-American Loan Agreement should be pointed out. The latter discussions are outside the scope of this volume. But the arguments of the United Kingdom at the end of 1945 and the response of the American Administration were in fact a development of the presentation made in the Stage II talks.

if the partnership were further strengthened in Stage II, this in turn would augur well for the work to be done in Stage III—the restoration of stability and freedom to an afflicted world. In November, 1944, hopes were indeed high. The Washington agreement was the climax of a unique collaboration in which two great peoples had directed their efforts and sacrifices towards a common purpose loyally pursued.

But anticlimax followed in the spring and summer of 1945. Its chronicle may be omitted from this book; the larger part of the story belongs to the political history of the United States. Suffice it to say that, although some of the Administration's undertakings to the British Government—which, as we have taken pains to emphasise, were never technically and formally binding—were loyally kept, others were in danger of being washed away by new tides of feeling and opinion that swept through Congress and the American people. A day came when the President of the United States issued a directive for the allocation of military equipment under lend-lease which contradicted the principles and plans that had been mutually agreed at Washington. He was a new President. Mr. Roosevelt had died on 12th April 1945.

In the early winter of 1944–45, the auguries had been good for the orderly transition from one phase of the war to the next and thereafter from war to peace. The combined action which had governed the mobilisation of economic resources for war was now helping to infuse order and method into the reverse process, now already beginning. Plans for partial reconversion were proceeding in the United States, the United Kingdom and Canada and information about them was being exchanged through the Combined Production and Resources Board. The whole process was regulated by the agreements that had been reached on the level and content of lend-lease and mutual aid. To the British, who had taught themselves to allocate their scarce resources with unprecedented rigour, a firm definition of international commitment was indispensable if they were to make the best of their national task. But that definition crumbled.

The disintegration had begun before Stage I ended. In Stage II it proceeded apace. Stage II became a chaos of uncertainties, which ended luridly when two atomic bombs were dropped on Japanese soil. That was an event of secular significance; but the present book is concerned with nothing more than its short-term consequences for one country. After practically no time of transition, no time to restore neglected plant or build up reserves or expand export production, the United Kingdom was plunged straight into the grim difficulties of Stage III.

CHAPTER XIX

TOWARDS PEACE

(i)

War-time Reconstruction Plans

FROM the invasion of Normandy onwards, a steady stream of papers came before the War Cabinet making it clear, in forceful terms, that the state of British external finances would be by far the gravest economic problem facing the country, once peace came into sight. But British planning for peace-time economic and social reconstruction had already taken shape long before Normandy, when peace and its difficulties had seemed very remote.

Systematic thought about the shape of society after the war had begun in August 1940, at the very time when Britain's danger was greatest. There existed at that time a strong impulse to fuse the will to victory with aspirations for a better world after victory. A War Aims Committee of the War Cabinet was set up and was expected to produce a declaration on war aims which could be used for propaganda in Europe. However, it proved difficult to produce anything beyond statements of high moral principle. Nothing was published; instead, at the end of 1940, a Minister without Portfolio was appointed 'to plan in advance'—as the Prime Minister put it¹—'a number of practical steps which it is indispensable to take if our society is to move forward'. The Minister's function was primarily one of co-ordination and his staff was small. In 1941 and 1942² his work was supported by War Cabinet committees set up at the ministerial and official levels to consider post-war planning; but these committees could do little more than explore the main problems. For one thing, ministers were not yet ready to take decisions on issues which might be highly contentious and which seemed at that time extremely speculative. For another thing, detailed plans for reconstruction would have to be prepared by the departments which would be responsible for carrying them out; but these departments were fully occupied with urgent war work and could as yet spare very little staff to make plans for after the war.

¹ H. of C. Deb., Vol. 368, Col. 264 (22nd January 1941).

² In March 1942 his work was taken over by the Paymaster General.

From the end of 1942 onwards a change became apparent. The War Cabinet committees on reconstruction were strengthened. In March 1943, the Prime Minister set forth in a long broadcast the heads of a four-year reconstruction plan for Britain. In November 1943, Lord Woolton was appointed Minister of Reconstruction. Once again, the Minister's staff was small and his function primarily a co-ordinating one; but this time the responsible departments were moved to devote much more time to the post-war problems of the controls they operated and the industries they controlled.

The plans which in the course of time emerged were divided very roughly into two classes, domestic and international. The domestic plans were of two kinds—plans for handling the problems of transition from war to peace, and plans for long-term social betterment.

In making preparations for the transitional period, the Government had prominently in mind the mistakes that had been made after the previous war. These mistakes were reviewed in a careful report prepared by an official committee as far back as 1942. The report recalled the inflationary boom that had been let loose at the end of the First World War. Underlying it had been a superabundance of purchasing power; a main impetus towards it had been the need to re-stock both at home and abroad and to overtake arrears of plant renewal. Easy conditions of credit, the rapid removal of war-time controls, the withdrawal of subsidies to the cost of living, continuing budget deficits and the heavy fall in the exchange value of sterling had intensified the inflationary boom. The ensuing slump, which began in the summer of 1920, had been correspondingly intense. The official committee was anxious that this sequence of boom and slump should not a second time repeat itself. Yet the same economic causes would be operating even more powerfully than after the earlier war. The release of manpower from the Services and war work would probably be slower and less complete. There would be far more physical damage to make good, a greater need for replenishing stocks, a bigger task of renewing plant and reconverting it to peace-time production, a larger banking-up of purchasing power in the hands of consumers with unsatisfied wants, a more pressing need to switch production from the home market to the export markets and greater hindrances to the procurement of overseas supplies. All these difficulties would probably be reinforced by larger and longer-continuing budget deficits and by much severer conditions of general world shortage than those that had obtained after the First World War.

It was of course impossible, in the middle of the war, to evaluate the probable comparative strength of these various influences. But the committee's analysis suggested three outstanding economic tasks for the transition period—restoration of the balance of payments;

restraint of inflation; transfer of productive resources to the most necessary tasks. Unless the heavy deficit in the balance of payments could be wiped out, the committee said,

‘the whole fabric of reconstruction is in danger and we run the risk of a failure to maintain essential imports and of a major inflation.’

Grave inflation at home would, in its turn, hamper the restoration of the external balance by diverting to consumption resources needed for capital equipment and exports. All the same, inflation was one method of speeding the transfer of resources from war to peace: if a price boom were ruled out, some alternative method of transfer would have to be found.

These basic ideas about the problems of the transition period were later redefined in accordance with the expectations that were held about the duration of the war. As has been seen, it was assumed that the Japanese war would continue for a good many months after the European war. Within the expanding field allotted then to ‘civil’ needs, production would have to be focused upon exports and upon essential goods for the home market and relief; at the same time, a start would have to be made upon the Government’s main reconstruction projects, for example, the housing programme. So long as supplies of consumer goods remained short, the more urgent consumer needs would have to be met first and the war-time policy of ‘fair shares’ would have to be maintained. Throughout, the Government continued to emphasise the importance of balancing the nation’s external accounts and restraining inflation.

Against this background, the Government constantly examined the apparatus of economic control built up during the war. When war ended in Europe, the controls would operate in very different conditions from those of full war. There would be political pressure to relax them substantially. There would no longer be a single criterion—that of unlimited war needs—for operating them. There would be new manufactures to control. Manufacturers would in general be attracted primarily to the home market. And the controls would have difficulties in retaining their staffs. Some relaxations in the detailed operation of the controls would no doubt be possible; but it seemed essential, if the aims of economic policy in the transition period were to be achieved, to maintain the general framework. It would not be enough to rely on any single group of controls—over manpower, for example, or finished products—or even on two groups in combination. War-time experience suggested that, at least in the earlier stages of transition, control would have to be maintained over the whole field—over labour, raw materials, finished products, prices and consumption: in addition, demand would still have to be repressed by heavy taxation and the stimulation of savings.

All these general discussions on the future of the controls were of course clouded by uncertainty about the length of the Japanese war. But some of the problems that would arise with the armistice could be tackled in advance. Demobilisation and resettlement, the liquidation of war contracts, the disposal of surplus government stocks and of government factories, the de-requisitioning of factory space—all these practical steps towards ‘unscrambling’ the war economy had been carefully studied from an early stage in the war.

The demobilisation plans were particularly important. For the elaborate demobilisation scheme of 1918 had been a failure. That precedent showed clearly that the principle of demobilisation by industrial category, however attractive it might be in theory, would be unlikely to commend itself to the troops as a fair arrangement. It might indeed be resisted to the point of mutiny. In consequence, as far back as 1941, the Government had adopted age and length of service in the Forces as its criteria for the order of release. The probability that war in Asia would continue for some time after the close of war in Europe created some complications; but the Ministry of Labour produced a fair and workable scheme for handling them. Under this scheme, men were divided into groups according to their age and length of service. Demobilisation was in the main to be in group order with the exception of a small number of workers required for certain urgent reconstruction jobs and a very small number of individual specialists who would be released out of turn. Provision was made for gratuities, free clothing and paid resettlement leave. The men released out of turn were to receive smaller financial benefits.¹ Higher pay would be made to the men engaged in the Far Eastern war. Principles were also formulated by the Ministry of Labour to govern the release of civilians on war work.² Side by side with these various schemes went arrangements for the further education and training of demobilised men and women.

Plans for the disposal of government assets were likewise governed by a determination to avoid the mistakes of 1918. It was generally agreed that there must be this time an orderly disposal of surplus goods which would exclude profiteering and serve the interests of consumers without disturbing current production. The necessary inter-departmental machinery for the collection, marking and disposal of surplus consumer goods and machinery was working well before the end of the war. Discussions were held with industry in good time. A special scheme was devised for machine tools so that factories might be re-equipped with surplus tools they needed

¹ *Reallocation of Manpower between the Armed Forces and Civilian Employment during any Interim Period between the Defeat of Germany and the Defeat of Japan.* Cmd. 6548. Demobilisation of any group or individual was subject to over-riding military need.

² *Reallocation of Manpower between Civilian Employments.* Cmd. 6568.

without damage to the valuable machine tools industry. Similarly, the Factory and Storage Premises Control of the Board of Trade was authorised in 1943 to collect lists of redundant government factories and of applicants for them. Gradually, too, the Board of Trade compiled for the supply departments a list of firms particularly important for exports and for reconstruction. These firms were to have priority of release from war contracts and from requisitioning.

While the Government was making these plans for a smooth and orderly demobilisation of the war economy, it was also giving much thought to reconstruction proper, in which plans for repairing the ravages of war merged with schemes for social betterment and the reorganisation of industry. At the head of the Government's list was a housing programme. We have already seen how bad the housing situation had become even before the flying bomb and rocket attacks; when demobilisation began it would grow even worse. There would be an immense demand on the building industry—not only for new houses but for maintenance, war damage repair, removal of defence works and many kinds of new building. A series of reports studied post-war building problems—the building labour likely to be available, the potential demand, methods of controlling the demand, the allocation of building labour and the cost of building. The housing programme fluctuated. It had to allow for all the other demands on the building industry. It was modified according to the assumptions about the end of the war and releases from the Forces. Moreover, air-raid damage continued right up to the end of the war. The last programme to be announced before the war ended—in March 1945—proclaimed the Government's intention that there would be 300,000 permanent houses built or building by the end of the second year after the end of the war in Europe. A good deal of preparatory work for the housing programme went forward during the war. Discussions began with local authorities; housing subsidies were extended; a beginning was made with acquiring and preparing sites; a survey was made of productive capacity in firms producing materials and fittings; standards and designs for houses and fittings were approved. On top of the housing programme proper, the Prime Minister called for a programme of emergency houses to be carried out 'by exceptional methods on the lines of a military operation'. Provision was made for £150 million to be spent on temporary pre-fabricated houses.

Housing was the chief item on the post-war building programme, but not the only one; schools, factories, roads, etc., also had to be built. All these claims on the use of land ought somehow to be harmonised so that rebuilding might go ahead without the loss of time, money and well-being that the wrong use of land had caused before the war. Heavy air raid damage had stimulated much interest in the

whole subject of town and country planning and the Government had begun to study the subject as early as 1940. A succession of public reports analysed the defects of the existing law and administration of town and country planning.¹ The Government's first measure was the establishment of a central planning body. Early in 1942, the Ministry of Works and Buildings was transformed into the Ministry of Works and Planning. Then, early in 1943, an independent Ministry of Town and Country Planning was set up to secure consistency and continuity in the framing and execution of a national policy towards the use and development of land. In the same year, an interim Development Act extended control over the use of land to all Great Britain and strengthened the powers to prevent development prejudicial to good planning. In 1944 the Government introduced a bill designed to enable local authorities, especially in the badly bombed cities, to acquire land in large blocks, so that they might plan the redevelopment of areas as units instead of piecemeal. The compensation to be paid for land thus acquired was fixed at the March 1939 level. But national rules were needed for 'compensation and betterment'—the sums to be paid to landowners who suffered financially from planning schemes, the sums to be collected from those other landowners who profited from the schemes. Before the war, the state of the law about this difficult problem had been chief among the hindrances to good town and country planning. The Government formulated proposals for tackling the problem;² but no legislation was passed before the 1945 General Election.

The provision of houses was one of the main items on the Government's reconstruction programme. No less important was the provision of work. As early as 1941, the Economic Section of the War Cabinet Offices had produced a paper on the maintenance of full employment after the war—not so much in the transition period, as in the long-term. In 1943, full employment and related subjects were intensively studied by a small committee of officials, and the Government's policy was subsequently set forth in a white paper.³ For the new era which would begin when the war ended, the Government accepted the maintenance of a high and stable level of employment as one of its major aims and responsibilities. The white paper explained the action proposed by the Government to maintain total expenditure for goods and services at the level necessary for avoiding general unemployment. It also examined two other conditions of full employment—a reasonable stability of prices and wages, and mobility

¹ *The Royal Commission on the Distribution of the Industrial Population* (Cmd. 6153); this is known as the Barlow Report. *The Committee on Land Utilisation in Rural Areas* (Cmd. 6378); this is known as the Scott report. *The Expert Committee on Compensation and Betterment* (Cmd. 6386); this is known as the Uthwatt Report.

² *The Control of Land Use* (Cmd. 6537).

³ *Employment Policy* (Cmd. 6527, May 1944).

of workers between occupations and localities. The Government's study had covered not only general employment policy but also the distribution of industry and ways and means of preventing heavy unemployment in particular areas. It proposed to schedule local danger spots of unemployment as 'development areas' and, by a variety of means, to encourage in those areas the development of new enterprises.

The discussions on employment policy embraced a variety of proposals for promoting industrial efficiency generally—for example, by the encouragement of research and design and the provision of financial facilities for small firms. But, during the last two years of the war, reports which were produced on the coal, building and textile industries raised some specific and very urgent problems of industrial efficiency. There was, besides, the problem of monopoly and restrictive practices. These subjects were not deeply probed in the white paper. The Government simply announced that it would seek power to inform itself of the extent and effect of restrictive agreements and of the activities of combines, and to check practices that worked to the detriment of the economy as a whole.

The separate studies of the post-war future of particular industries cannot be reviewed here; but something must be said of agriculture. The first reconstruction plans for any organised occupational group within the nation were produced by the Ministry of Agriculture. The Government had indeed made promises on the subject of post-war agricultural policy as early as November 1940, when it announced that the system of fixed prices and an assured market for agricultural produce would be maintained for at least one year after the war and publicly affirmed 'the importance of maintaining after the war a healthy and well-balanced agriculture as an essential and permanent feature of national policy'. There were considerable differences of opinion about the implications and implementation of this pledge—for example, about the size of home agriculture and the degree to which it should be insulated against supply and demand. Meanwhile, uncertainties were growing about the conditions of overseas supply. In 1944, the War Cabinet agreed that the system of fixed prices and an assured market should be maintained until the end of the 1947 harvest. This, it was hoped, would cover the transition period and allow enough time after the end of the war for the formulation of a long-term agricultural policy.

Linked with all the hopes and plans for a healthier and more stable British economy were other hopes and plans for improvements of the social services. There were minor schemes, such as milk and meals in the schools, and there were three major projects: reform of education, a national health service, social insurance. The Government's plans for a recasting of the national education services

appeared in 1943¹ and the reforms were passed into law before the end of the war. The other two projects were not legislated upon during the war; but the preparatory work on each of them was carried a long distance forward. The scheme for a national health service was published by the Government early in 1944:² its purpose was to provide for every man, woman and child in the nation all the medical advice and treatment he or she needed, irrespective of ability to pay. Planning for the reform of social insurance had been set in hand as far back as the middle of 1941, when the Government invited Sir William Beveridge (as he then was) to take charge of a comprehensive survey of existing schemes. His Report appeared at the end of 1942³ and aroused much popular enthusiasm. The Government spent many months studying the Report and working out detailed proposals⁴ on the many points involved in the reform of workmen's compensation and the unification and extension of insurance for sickness, unemployment and old age; the proposals also included a scheme for family allowances.⁵

This bare summary of domestic reconstruction plans could not be omitted from the history of the British war economy. There existed, so to speak, an implied contract between Government and people; the people refused none of the sacrifices that the Government demanded from them for the winning of the war; in return, they expected that the Government should show imagination and seriousness in preparing for the restoration and improvement of the nation's well-being when the war had been won. The plans for reconstruction were, therefore, a real part of the war effort. In the later years of the war, particularly, they absorbed a very considerable part of the energies of departments, burdened though they were by urgent war tasks.

It is for the historians of the peace to judge how much of the work that was done in those years of heavy pressure was justified later on. They in their turn may find it convenient to make the same division of reconstruction plans that this chapter has used—plans for the transition from war to peace and those for long-term improvements. They may well be agreed that with one or two important exceptions⁶ the plans for orderly demobilisation and for a smooth reconversion of industry passed the tests of experience. Opinion about the long-term plans, on the other hand, is already controversial.

¹ *Educational Reconstruction*. Cmd. 6548, July 1943.

² *A National Health Service*. Cmd. 6502, February 1944.

³ *Report on Social Insurance and Allied Services*. Cmd. 6404, November 1942.

⁴ *Social Insurance*, Part I and Part II, Cmd. 6550 and Cmd. 6551, September 1944.

⁵ A family allowance scheme was one of the three assumptions which Sir William Beveridge's Report took as its starting point.

⁶ For example, far too little attention was given to the implications of the continuous decline in coal stocks.

Most of the long-term plans could not in any case be put into final shape during the war because they involved political decisions which a coalition government could not easily make. But the decisions when they came were often based on the preparatory work done during the war and public expectations were certainly stimulated by war-time plans. Were these plans no more than 'practical steps' which it was 'indispensable to take if British society [was] to move forward?' Did not the war itself compel many major reconstruction schemes? Were the plans, on the other hand, based on hopes which were illusory? Did they reckon sufficiently with the difficulties of external payments? Were they too optimistic about the continuing growth of national income?¹ In 1944, when most of the long-term plans had already been assembled, a cry came from the Treasury that 'the time and energy and thought which we are all giving to the Brave New World is wildly disproportionate to what is being given to the Cruel Real World.' Was this true?

These are questions that can only be answered when the history of the peace is written. Certainly if there was optimism it was no less apparent in international than in domestic plans and no less prevalent among the Americans than among the British. Leading economists and officials of the two countries, at a series of conferences and in very persistent labours between them, devoted long sustained efforts to a large task of constitution-making in the sphere of international economics.

Reference may first be made to the short-term plans for relief in the war-devastated countries. An agreement for the establishment of a United Nations Relief and Rehabilitation Administration was signed in Washington in November 1943.² The United Kingdom willingly assumed the financial obligation determined by the Council of U.N.R.R.A. at its first meeting at the end of 1943—a contribution amounting to not less than one per cent. of the national income in the year ending 30th June 1943.³ For a country in the financial situation of Britain, the contribution was not a light one: during the two years or so when U.N.R.R.A. operated it amounted to £155 millions. This was additional to the sums provided for military administration of relief in the early days of liberation.

¹ In 1943, the Government accepted £7,000 millions as the probable level of the national income in 1948—that is, allowing for a price level thirty-five per cent. higher than pre-war, the national income would be between seventeen per cent. and twenty per cent. greater than in 1938. The estimate was the result of various guesses about post-war unemployment, the size of the working population, hours of work, productivity and terms of trade. Of the economists and statisticians who produced the estimate, some thought £7,000 millions was much too pessimistic and others that it was far too optimistic. The £7,000 millions figure was based on guesses about unemployment and the size of the working population that have proved too pessimistic, but the pessimism was far out-weighted by over-optimism about hours of work, the terms of trade and—above all—productivity.

² Cmd. 6491.

³ Cmd. 6497. Not less than ten per cent. of the contribution was to be in convertible currency.

The first of a series of Allied conferences on long-term problems of international economic policy was held at Hot Springs in the United States in May 1943.¹ Its purpose was to discuss post-war food problems and the provision 'for all the men in all the lands' of a secure, adequate and suitable supply of food. It exhorted governments to undertake the improvement of their peoples' diet by a variety of means and laid down principles which should govern the production and distribution of foodstuffs if an 'economy of abundance' were to be achieved. To deal with what was thought to be the short-term problem of scarcity, the Conference called on the one hand for a production drive, especially of crops for direct human consumption, and on the other hand for the continuation of international schemes for the allocation of food and shipping. Finally, it recommended that a permanent organisation for food and agriculture should be established and that an 'interim commission' should be set up immediately to formulate a specific plan for the permanent organisation. The Food and Agriculture Organisation of the United Nations was constituted at the end of 1944 and the United Kingdom Government immediately became a member.²

There was, perhaps, some tactical advantage in opening the discussions on international economic policy on a simple theme which was likely to touch the popular imagination; but the problems of food and agriculture could not be separated from the wider problems of world trade. The United Kingdom and the United States were pledged to early discussions on trade policy. In Article VII of the Mutual Aid Agreement signed in February 1942,³ they had agreed in general terms that the final settlement of lend-lease should—

'include provision for agreed action by the United States of America and the United Kingdom, open to participation by all other countries of like mind, directed to the expansion, by appropriate international and domestic measures, of production, employment, and the exchange and consumption of goods . . . ; to the elimination of all forms of discriminatory treatment in international commerce, and to the reduction of tariffs and other trade barriers.'

On the British side, a good deal of work was done to prepare material for the coming discussions with the Americans. There emerged three main items for discussion—a currency scheme, a commodity scheme and proposals for commercial policy. When the first general talks took place in the autumn of 1943, the United States broadened the agenda to include an international investment bank, employment policy and international cartels.

¹ *Final Act of the United Nations Conference on Food and Agriculture*. Cmd. 6451.

² *Documents relating to the Food and Agriculture Organisation of the United Nations*. Cmd. 6590, 1945.

³ *Agreement on the Principles applying to Mutual Aid*. Cmd. 6341, 1942.

The currency question came first. The British proposals were founded on Lord Keynes' suggestion, made in the spring of 1942, for an International Clearing Union. Under this, a new international money of account and a new international central bank would be created to aid adjustments in the international balance of payments. Countries with a deficit would be allowed, with certain safeguards, to overdraw at a central clearing union.¹ These proposals in some respects went further than those put forward by the United States; but the differences were reconciled and a United Nations Conference was held at Bretton Woods in the summer of 1944. There, the forms of an International Monetary Fund and of an International Bank for Reconstruction and Development were agreed.² Ratification by Governments was of course necessary before individual countries became participants in these new institutions.

Not long after the first currency proposals appeared, another paper—again the work of Lord Keynes—put forward a commodity scheme designed to iron out extreme fluctuations in the prices of primary products. In essentials, the proposal was that buffer stocks should be set up by international commodity controls and operated so as to stabilise prices near 'a reasonable level'. Provision was made for the organised restriction of production in the event of chronic excesses of supply over demand. The principles embodied in this scheme were, in general, acceptable to the Americans and at the Anglo-American discussions of the autumn of 1943 broad agreement was reached. Both sides accepted the view that international commodity arrangements should be made; that they should in operation be harmonised with the general aim of economic expansion; in consequence, that the primary object of buffer stock arrangements should be merely to mitigate short-term price fluctuations, leaving long-term price adjustments to follow the basic conditions of demand and supply.

Commercial policy occupied the central place in the Anglo-American programme of economic discussion. On the British side, a forthright impulse was given at an early stage by the Board of Trade. Towards the end of 1942, the President of the Board looked forward to the 'chance of a first-class shake up at the close of this war'. He believed that the opportunity should be seized and great efforts made to bring about big cuts in tariffs and preferences everywhere within a new international association called the Commercial Union. His proposals were further elaborated by an official committee and then went to the War Cabinet. The War Cabinet, after much discussion, recorded a provisional conclusion in favour of taking the initiative in putting forward proposals based on the view that a general clearance of barriers to world trade was particularly in the interest of the

¹ *Proposals for an International Clearing Union*. Cmd. 6437 (April 1943).

² *Final Act of the Conference held at Bretton Woods*. Cmd. 6546.

United Kingdom, and that such a clearance could best be secured by a multilateral commercial convention open to adherence by all States. This conclusion was qualified by the insistence that a country with an adverse balance of payments must preserve its freedom to maintain quantitative import restrictions without having to obtain the permission of an international monetary authority.

On this basis, discussions were held in 1943 first with the Dominions and then with the United States of America. The upshot was general agreement between British and American officials in favour of a multilateral international convention under which agreed limits would be set to all protective measures and discriminatory practices would be forbidden. The proposals involved the reduction of tariffs, the narrowing of preferential margins, the abolition of export subsidies (though not of general subsidies to production), rules designed to prevent the use of State trading in ways that would infringe either the agreed limits of protection or the rules against discriminatory trading, and finally, the banning of import quotas unless they should be specifically permitted to remedy disequilibrium in a country's balance of payments. It was recognised that such a régime could not come into full force during the first period of economic reconstruction and that many improvisations would have to be permitted during a transition period. To supervise the execution of the agreement and to serve as a forum for the discussion of international trade questions, an International Trade Organisation was proposed.

The Anglo-American discussions of 1943 were between officials and it was often emphasised that they in no way committed His Majesty's Government. Differences of view in the War Cabinet in fact arrested the discussions in 1944. They were not renewed until the end of the year. This time the British proposals were modified to allow greater protection for home agriculture and temporary protection for infant industries.

The discussions on commercial policy, commodity policy, employment policy and cartels were so inter-connected that they were combined in one comprehensive agenda. They still proceeded at the official level. No government decisions on any of the subjects had been reached by the time the German war ended and a General Election was held in Britain. But at Potsdam and subsequently in the financial talks at Washington, these questions were considered as matters of urgency. In the minds of many United Kingdom officials, the principles and purposes of the 1945 Loan Agreement were in fact a pendant to the discussions on international commercial policy. In December 1945, the British Government published the proposals formally transmitted to them by the United States Government for consideration by an International Conference on Trade and Employment. The ground they covered was by now very familiar. The

Government of the United Kingdom announced that it was on all important points in full agreement with the proposals. It accepted them as the basis for international discussions and undertook to use its best endeavours to bring the discussions to a successful conclusion.¹

(ii)

Some Costs of the War

Clear insight into fact may be fogged just as easily by disillusionment as by hope and we do not propose, at this stage of our history, to brood too mournfully upon 'the cruel real world'. But the radiance of the earlier visions of a 'brave new world' had certainly been dimmed by the time the war ended. To quote Lord Keynes, Britain was faced with what might be called 'without exaggeration and without implying that we should not recover from it, a financial Dunkirk'.

The quotation is taken from a paper which came before the War Cabinet on 14th August 1945, the day on which Japan accepted unconditional surrender. The paper and the discussion upon it laid stress on the things that Britain herself could do. But they would take time. In the balance of payments for 1946, 1947 and 1948 the prospective deficit was so great that, unless substantial new aid were secured from the United States to compensate for the imminent closure of lend-lease, the nation would be 'virtually bankrupt and the economic basis for the hopes of the public non-existent'.

On 17th August, President Truman issued a directive ending lend-lease as from America's officially appointed VJ-Day, which was fixed subsequently for 2nd September. The abrupt cessation of supplies already in the 'pipeline' would have completely disorganised British economic life and the British Government undertook to purchase them, on terms to be negotiated later as part of a general financial settlement. Before the Japanese war ended, both Governments had already begun preparations for talks to be held at Washington in September upon the subject of Britain's financial position in Stage III. VJ-Day made the talks far more urgent. In the first week of September, a British mission headed by Lord Keynes arrived in Washington.

The primary aim of the mission was to negotiate dollar credits. In addition, it had to discuss the winding-up of lend-lease and the implementation of Article VII of the Mutual Aid Agreement. All these matters were closely intertwined and all were finally included in

¹ *Proposals for consideration by an International Conference on Trade and Employment* (December 1945), Cmd. 6709.

a comprehensive 'economic concordat' between the United States and the United Kingdom. It is not our purpose to study this concordat, for we are writing the last chapter in a history of the war, not the first chapter in a history of the peace. Certainly, disentanglement of the war history from the peace history is no easy matter; it is, indeed, a highly artificial attempt, for wars are not switched on and off like the electric light. But we must manage our task as best we can.

We may begin by recording the final and complete settlement of lend-lease.¹ Over the whole period from March 1941 to September 1945, the balance in favour of the United States in the mutual aid books² was in round terms about \$21,000 millions. But by the settlement of 1945 Britain was required to pay no more than \$650 millions, or £162 millions sterling. Of this, about \$118 millions³ (=£30 millions) was the net amount due to the United States in the offsetting arrangements in mutual aid after VJ-Day. Approximately another \$60 millions (=£15 millions) represented payment by the United Kingdom for the acquisition of tangible assets previously the property of the United States and valued at about \$350 millions at original cost to the United States.⁴ The remaining \$472 millions (=£118 millions) were due to the United States in final settlement of the mutual aid account proper for the whole period from 11th March 1941, to VJ-Day. This sum was in fact simply a payment for the considerable stocks of lend-lease goods of civilian types which the United Kingdom held on VJ-Day and now acquired outright.⁵ The only other item it included was payment for the net acquisition by the United Kingdom of petroleum stocks throughout the world.

There were no other claims for payment. There were in the settlement no financial obligations whatever for lend-lease and mutual aid goods destroyed or consumed during the war. Naval vessels and merchant ships supplied and still surviving at VJ-Day were returnable to the supplying Government. Installations constructed under reciprocal aid for the United States Forces in the United Kingdom reverted to the United Kingdom; the same principle applied to lend-lease installations in the United States. As for munitions, the title to lend-lease military supplies held by the United Kingdom Forces at VJ-Day remained with the United States which retained the right—though they would not generally exercise it—to recapture

¹ See *Financial Agreement between the Governments of the United States and the United Kingdom*, Cmd. 6708; *Specific Agreements Regarding Settlement for Lend-Lease, Reciprocal Aid, Surplus War Property and Claims*, Cmd. 6778. See also *Journal of the Royal Statistical Society*, Vol. CIX, Part III, 1946, article by R. G. D. Allen.

² Mutual aid only between the United States and the United Kingdom.

³ This was later reduced to just under \$90½ millions. Cmd. 7471.

⁴ R. G. D. Allen, *op. cit.*

⁵ *Ibid.* These stocks were valued by the United States Administration at \$690 millions at original cost.

the equipment; again, the same principle applied to reciprocal aid equipment held by the United States Forces.

The lend-lease settlement, it must be said once again, was part of a comprehensive 'concordat' which included the loan agreement and the agreement on commercial policy. An historian of the peace would find it hard to remove the settlement from the wider context to which it belongs. But the historian of the war may treat it in isolation. The settlement was on its own standing fair and indeed magnanimous. It did not shoulder the United Kingdom with any repayments for purely war-time aid. This item at least was not added to the costs of the war that the British nation would have to meet in the peace.

The Washington negotiations of 1945 made it clear that these costs were, in truth, already burdensome enough. The general analysis of the United Kingdom's position did not vary in essentials from that disclosed in the Stage II talks of the previous year. The salient points affecting the balance of payments have by now become familiar in this book—the United Kingdom's very high mobilisation at the cost of its civilian production and export trade, the sale of its foreign investments, the loss of its shipping, its low gold and dollar reserves and its immense external liabilities. It would be mere repetition to traverse this ground again in detail. But it is worth while bringing the figures up to date, as it were, in order to see where the United Kingdom stood when VJ-Day came.

First, external disinvestment: in the period from September 1939 to June 1945, this added up to a total of £4,198 millions. Of this total, £1,118 millions represented the sale of capital assets, £2,879 millions the increase in external debt and £152 millions the reduction in gold and dollar reserves.¹

Next, shipping: after allowing for the return of ships belonging to other countries, the merchant shipping fleet of the United Kingdom and Colonies, which had been so valuable a source of foreign exchange, was about thirty per cent. smaller at the end of June 1945 than it had been on the outbreak of war.²

Next, exports: during the first nine months of 1945, British exports had risen above the low level of 1944; but they were still not much more than forty per cent. by volume of the 1938 level.³

Last, the military aftermath: it was clear that the costs of the war would not cease to accumulate now that the Japanese had surrendered. The aftermath would involve the Government in expenditure abroad which, although lower than in war time, would be far higher than before the war. War-time bills would be presented in arrears;

¹ See Table 3 (a) on p. 352. The remaining £49 millions come under the heading 'unallocated'.

² Cmd. 6707. The calculation is by deadweight tonnage.

³ *Ibid.*

more important still, there would be the costs of occupation and policing.

When the British negotiators in Washington looked forward to 1946, therefore, they foresaw a huge deficit in the United Kingdom's balance of payments. Assuming an export and import price level double pre-war, a very rough calculation suggested that the deficit in visible trade which had been about £300 millions in 1938 might be £650 millions in 1946. Government expenditure abroad which had been £16 millions in 1938 might be £300 millions in 1946 and net invisible income might shrink from the 1938 figure of £248 millions to £120 millions. Altogether, the estimate, the precariousness of which was often stressed, was that the deficit in the balance of payments in 1946 might be £750 millions even with a very austere import programme. The years after 1946 were of course even more uncertain. The hypothesis then held was that the adverse balance would diminish until equilibrium was reached, possibly in 1951. But by that time the cumulative adverse balance might be £1,250 millions or even higher.

These calculations and the need for a relentless export drive had to be viewed against the background of Britain's internal economy. The manpower figures¹ show that at June 1945 Great Britain still had nearly forty-five per cent. of its labour force in the Services and munitions industries. Only two per cent. were producing exports and less than eight per cent. were providing and maintaining the nation's capital equipment.²

In some ways, however, the high war-time mobilisation promised peace-time compensations. In particular, the employed population in mid-1945 was about three millions higher than in mid-1939—partly, as we saw, because of an increase in the labour force and partly because of a reduction in unemployment. This increase over pre-war would not be maintained in its entirety in peacetime; but in all probability it would at least more than balance the nation's war casualties. They fell far short of the dreadful total of the First World War, but were nevertheless grievous; rather more than 360,000 civilians and members of the Forces had been killed or were still missing.³

In general, it was not doubted in 1945 that manpower, highly mobilised though it was, would redistribute itself pretty quickly among peace-time tasks. It was not expected that a distorted distribution of manpower would be a permanent cost of the war. But there were some exceptional and very intractable manpower problems. The war had dealt harshly with one or two basic industries whose position had been difficult enough before it began. Coal was the

¹ See Table 2 (b) on p. 351.

² Cmd. 6707.

³ i.e. still missing in 1946. *Strength and Casualties of the Armed Forces*, Cmd. 6832 (1946). The casualty figures are for the United Kingdom, not Great Britain.

outstanding example. By 1945, for the first time for a century and more, plentiful and cheap coal had ceased to be the basis of British economic life. The number of wage earners on colliery books had fallen from 782,000 in 1938 to 709,000 in 1945; war-time efforts to rebuild the labour force had never met with much success. Early attempts to rebuild the textile industries had also been unpromising. The estimated numbers employed in these industries, which were so important for the export trade, had fallen from approximately 987,000 in June 1939 to 619,000 in June 1945.¹

The 'undermanning' of certain vital industries was not the only cost of the war in manpower terms. The war had also affected efficiency as measured by output per man year. The statistical difficulties of measuring changes in productivity are formidable, and there is not the evidence for drawing general conclusions. In some cases, however, the position is clear. We have already seen the serious fall in output per man in the coal-mining labour force.² This fall, added to the decline in the total of the mine-workers, had been largely responsible for one of the war's most dangerous legacies—a grave coal stocks and production problem. It is also certain that during the war productivity in the building industry had shown a marked fall.

There were some items to be put in the credit column of this reckoning of efficiency. An outstanding example was agriculture. In the present book we have discussed agriculture almost solely in the context of price policy and we cannot now do more than summarise the productive achievement. During the war, the value of the net agricultural output at constant prices had increased by about thirty-five per cent. Intensive investment in petrol-driven machines had made British agriculture among the most highly mechanised in the world, with 190,000 tractors compared with a pre-war figure of 60,000. It appeared that output per man year had risen by as much as ten to fifteen per cent.³ and that these results were more than enough to compensate for the costs of the war that had arisen through a reduction in livestock.⁴ It was possible that some, though not all, of this increase could be carried forward for peace-time purposes.

It is possible that the war had brought increased efficiency to some other industries—for example, to some food industries, boots and shoes, tobacco and tinplate. In the engineering industry, the war had brought much that was new in mass production techniques. In many sectors of the industry, these techniques were not applicable to peace-time

¹ Central Statistical Office, *Monthly Digest of Statistics*. The figures are for Great Britain and include males aged fourteen to sixty-four and females aged fourteen to fifty-nine; non-insured workers earning over £420 per annum are excluded.

² See above, Chapter XVI, Section (ii).

³ *Economic Survey for 1947*, Cmd. 7046, para. 106.

⁴ There were more cattle at the end of the war than at the beginning (most of the increase was in dairy cattle) but far fewer sheep, pigs and poultry.

production but in other sections—motor cars, for example—they promised real peace-time benefits. The measurable evidence about all these influences, however, is scanty. And even where efficiency increased during the war, the increase was not necessarily sustained in the post-war years.

It is to be hoped that before long some economist or historian will attempt a detailed study of the war-time changes in industrial efficiency and of the underlying influences such as methods of management, rationalisation and reductions in the number of types of particular products.¹ In this chapter, we shall simply pause to consider one of the most important of these influences—the capital equipment of industry. It has already been emphasised sufficiently in this book that one of the main methods of meeting the internal cost of the war was by depreciating 'non-war' resources and property. In addition, there was extensive war damage to property—much of it industrial plant. A very rough estimate that was produced during the Washington talks in 1945 suggested that physical destruction and internal disinvestment over the war period had together destroyed about ten per cent. of the pre-war national wealth.² With external disinvestment added, the calculation of the loss of wealth reached twenty-five per cent. At home, the evidence of this loss was abundant not only in bomb damage but in the absence of civilian building and the inadequate maintenance and replacement of equipment in nearly all the industries that, for manpower purposes, were called Group II and Group III—that is, inland transport, shipping and docks, gas, electricity, water and drainage and all the manufacturing industries except metals, engineering and chemicals. One of the worst threats to the future was the war-time impossibility of building enough generating plant to keep pace with the rising demand for electricity.

Seen in total figures, the United Kingdom's capital equipment undoubtedly suffered heavy depreciation during the war. The private net capital loss at home from 1940 to 1945 inclusive has been estimated in very rough terms at more than £1,700 millions. This figure, however, did not represent the total loss to be made good; part of the capital maintenance which would normally have been required was to provide for consumption that had been not merely postponed but permanently forgone during the war. Moreover, the total figure of loss conceals some important items on the credit side. British agriculture was far better equipped than before the war. Although the coal-mining industry had suffered for other reasons a calamitous fall of productivity, it possessed at the end of the war more machinery for cutting, conveying and loading coal—though less for cleaning it—than it had possessed at the beginning.

¹ Beginnings have already been made; for example by Dr. L. Rostas.

² Cmd. 6707, Appendix VIII.

Above all, the Group I or munitions industries—metals, engineering and chemicals—had benefited from a great increase in their capital equipment. The figures for the loss of national wealth and the figures for private disinvestment do not take account of government capital expenditure during the war which had a peace-time use. Between April 1939 and March 1945 the Government spent well over £900 millions gross on capital expenditure—buildings and plant—in the munitions industries alone.¹ A small part of this figure consisted of overseas expenditure. The domestic figure, moreover, would have to be substantially written down to arrive at the value of the capital assets that were available and suitable for peace-time production. To take one example, machine-tools: some of the tools provided by the Government were worn out and the rest had depreciated by the end of the war. Nevertheless, at the end of the war machine-tools worth about £100 millions were available for disposal to private industry. Some of the tools were useful only for war production, but even after making all allowances the engineering industries undoubtedly derived great benefits from these acquisitions.² Not only could the munitions industries buy government-owned tools and plant at the end of the war: during the war their finances were strong and in the later years they were able to replace equipment far more rapidly than was normal in peace time.³ Another example is government buildings; between the end of the war and the end of June 1948 about seventy-five million square feet of government-owned factory space had been allocated for peace-time industry.⁴

The loss of capital equipment during the war, then, was not quite so great as it sometimes seemed. But in spite of qualifications the loss undoubtedly remained very heavy. This deterioration in the nation's capital position could be expected to have two ill effects on the peace-time economy. In the first place, it would retard production, both directly and also indirectly through its impact upon the living conditions of a people who in any case were bound to suffer the after-effects of six years of over-work and over-strain. In the second place, the necessity of replacing the lost capital would compete strongly with other urgent demands upon the nation's production. Paramount among these, as has been made abundantly clear, were exports, which were quite literally a matter of national life and death. But there were other urgent claims besides. There was relief

¹ i.e. excluding hostels, camps, airfields, etc.

² In 1935, which was quite a prosperous year, the intake of machine-tools into the engineering industry was worth only £5 millions.

³ See *British War Production*, Chapter VII, Section 4, and Chapters VIII and IX.

⁴ All the factories that were allocated might not find a permanent peace-time demand. Some were inconveniently situated and firms might not always wish to operate them when new factories become easier to acquire.

in the reoccupied countries, which again meant exports. And there were the demands of the civilians at home who, in the six years of war, had received less than four years' normal supply of clothing and less than three years' supply of household goods—to take at random two examples out of many. Private stocks of all civilian goods were low and clamoured for replenishment; stocks in the hands of distributors were equally low.

Thus the war had left vast unsatisfied claims upon production. It had also left dangerously large accumulations of purchasing power. War-time taxation, it is true, had been heroic; it had produced drastic effects upon the distribution of income between different classes¹ and had powerfully restrained inflation. But taxation had not been the only means whereby the Government had got into its hands the means of paying for the war. There were 'the post-war credits', a kind of forced savings collected with income tax but not strictly a part of it; these, to be sure, need have no inflationary effect after the war, because the Government could determine the time of their release. It was different with the voluntary savings which had reinforced taxation; any person could turn his war savings into spendable cash at any time. In addition to these savings, there were the Service gratuities. Savings and gratuities together were bound to intensify the difficulties arising from the contrast between enhanced money incomes and a painfully constricted supply of goods and services. It would be difficult indeed to prevent the demand of British consumers from competing too fiercely with the urgent needs of the export trades and restoration of the nation's capital equipment.

Within the realm of home finance, perhaps the most insidious legacy of the war was a habit of mind. The reckonings of national achievement to which people had accustomed themselves had been in physical terms. Finance had lost its traditional significance as a criterion and a method of control. The call had been for production and for government spending without too close a regard for the costs.

The Supply Departments have demanded of the Treasury that money should be no object. [so wrote Lord Keynes in 1944] and the Treasury has so contrived that it should be no object. The financial problems of the war have been surmounted so easily and so silently that the average man sees no reason to suppose that the financial problems of the peace will be any more difficult.

For the British people, as well as for their defeated enemies, a painful and dreary course of 're-education' lay ahead.

All the costs of the war which we have enumerated—most of them tangible, some of them closely measurable, a few of them rather

¹ It is to be hoped that some writer will undertake a close comparative study of war-time changes in the standards of living (in the fullest sense) of different groups and classes of the population.

elusive—were plainly apparent when the war ended. But there were other costs which did not become apparent until later on. Despite our determination to avoid entangling ourselves in post-war history, we are tempted to lengthen the perspective a little—to reassess the costs of the war to Britain from the vantage point of 1947, when the initiative of an American Secretary of State, supported on this side of the Atlantic by a British Foreign Secretary, launched the European Recovery Plan. By that time, the early and in some respects misleading spurt of recovery, which had been made in 1946 by Britain and some of her neighbours, had been arrested. It had become clear that the costs of the war were far more complex and cut far closer to the bone than had been realised earlier on. In the special case of the United Kingdom, it would plainly take far longer than had been expected to make up the arrears of expenditure on consumption and capital goods; during that time, the conflicting claims upon limited economic resources—which to a degree unprecedented in history must be devoted to export—would be fierce indeed. But the special case of the United Kingdom was everywhere interwoven with the special case of many another national economy. Germany's collapse threatened to drag with it the countries whose economies depended on German coal, steel and industrial capacity. Devastation in Russia and Eastern Europe had cut off the major European supplies of grain and timber. Asia, which had emerged from the First World War almost unharmed, had suffered this time alarming material and psychological damage: some of the Asiatic countries which had been formerly such valuable direct suppliers of European needs and such bountiful earners of dollars were now themselves hungry 'demand' countries. The United Kingdom was dependent to an unprecedented degree upon the North American continent, where industrial and agricultural production had expanded no less sensationally than it had contracted elsewhere.¹ But the abnormal demands upon American production—demands both domestic and foreign—had greatly inflated the dollar cost of what America could supply. For the United Kingdom in particular, the inflation of American prices was a cruel problem, not merely because the British requirements of imports in proportion to population were exceptional, but also because changes in the terms of trade fell with exceptional, if not with exclusive severity upon the British economy.² The effects of

¹ Before the war, the sixteen nations participating in the European Recovery Plan had drawn about forty-five per cent. of their overseas imports from North America: it was believed that the corresponding proportion in 1948 could not be less than two-thirds.

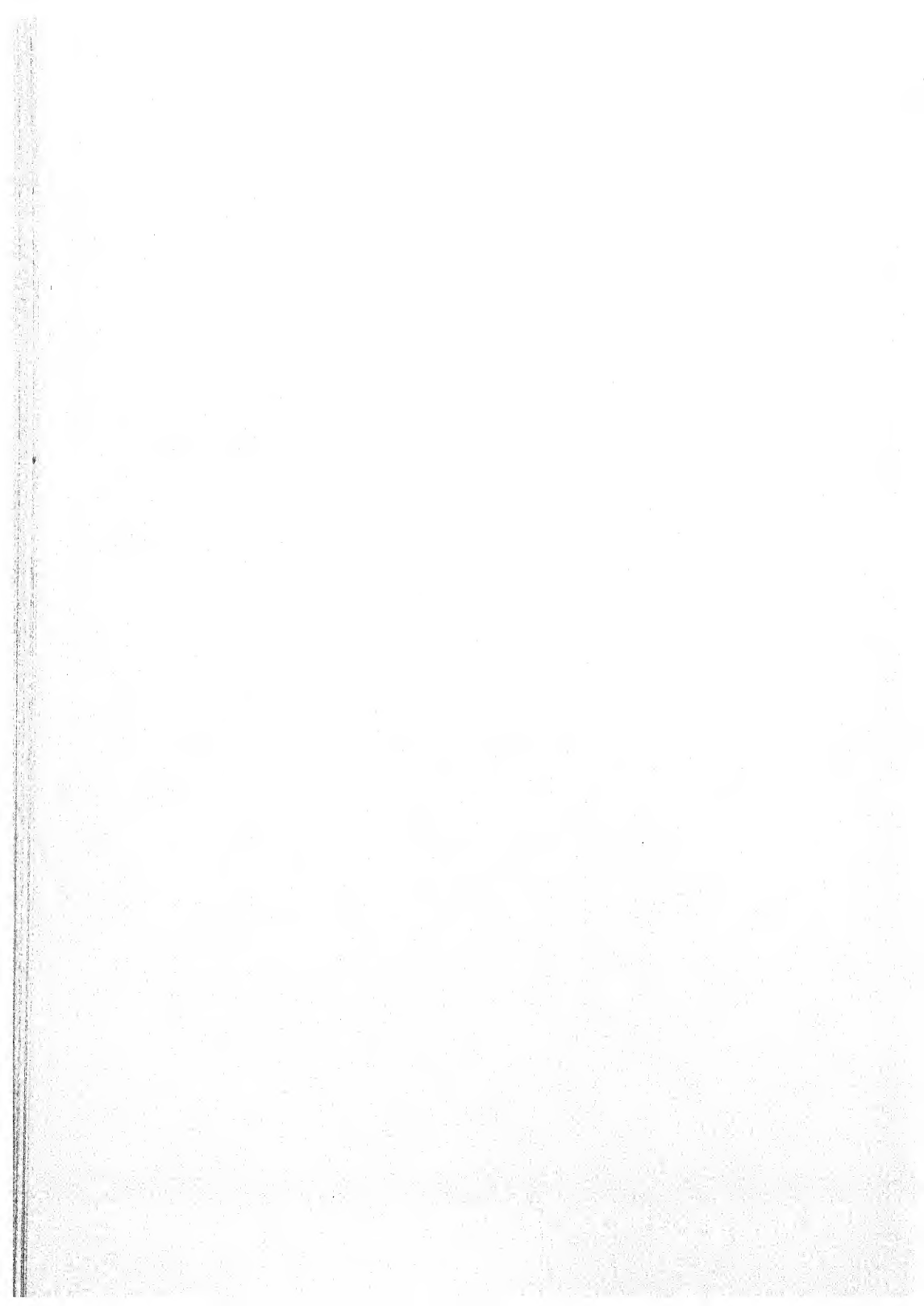
² cf. *A Survey of the Economic Situation and Prospects of Europe* prepared by the United Nations Research and Planning Division, Economic Commission for Europe (Geneva, 1948) p. 57. Taking 1938 as the base year equal to 100, the average cost of the United Kingdom's imports in terms of its exports was 106 in 1946 and 119 in 1947. For the continental countries of Europe there was no comparable deterioration in the terms of trade though the reason was in many cases a sinister one—namely, the inflation of the prices of their exports to a degree which restricted sales.

these distortions in the channels of trade were all apparent within two years from the end of the war. There were other distortions whose effects were longer delayed; sooner or later, for example, Britain could expect to experience new difficulties in placing exports owing to the rapid industrial growth of countries which formerly had been large buyers of British manufactures.

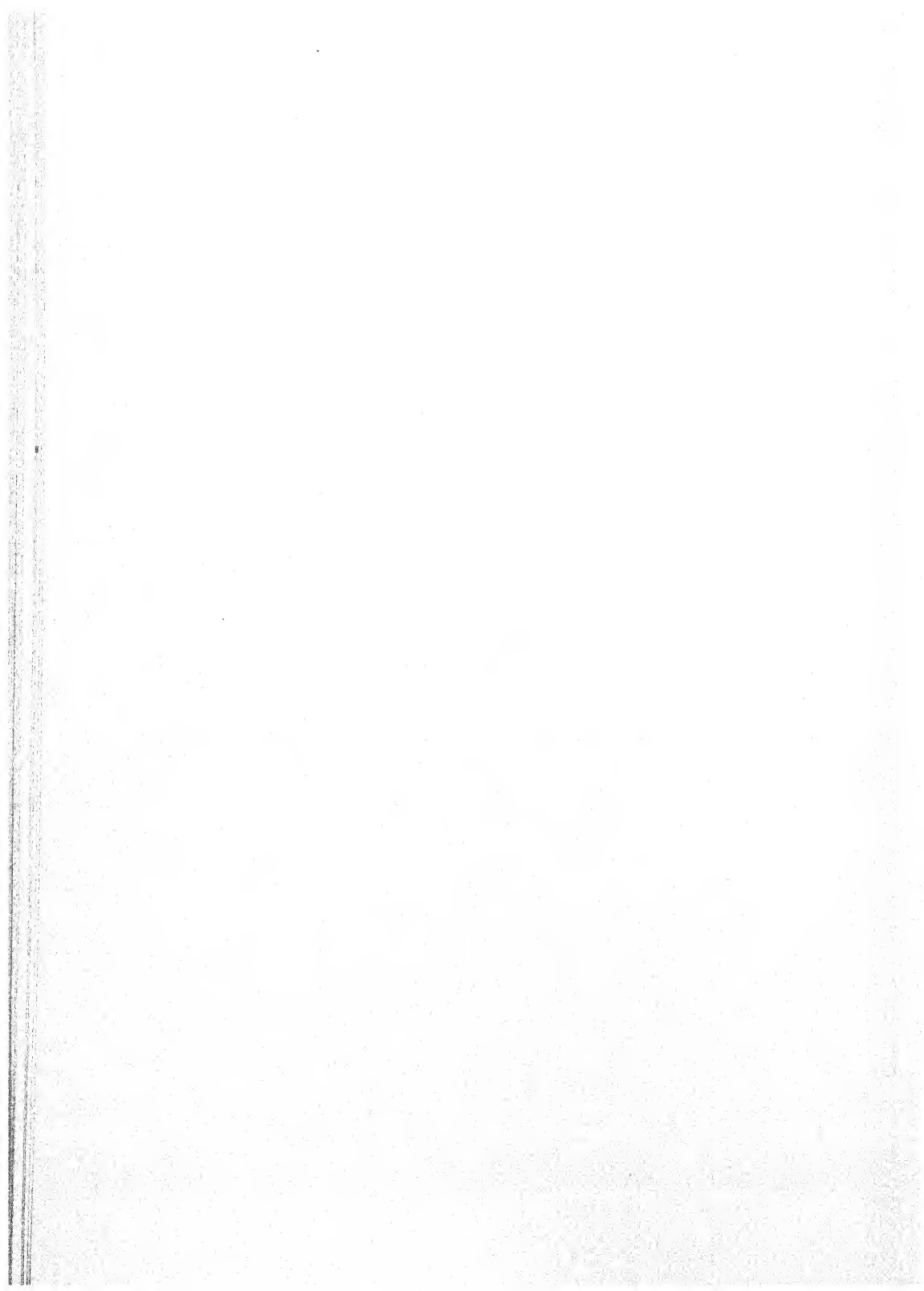
Despite our protests, we shall soon find ourselves, if we are not careful, entangled in the history of the post-war world. Perhaps we have written just enough to demonstrate one important truth—that the costs of the war to the United Kingdom and to the international community in which the United Kingdom earns its living will not be fully recognisable until the violent efforts and upheavals of 1939–1945 have receded into a more distant perspective. Perspective, of course, reaches backwards from 1939 as well as forwards from 1945. Historians are already busily reminding us that our main economic problems, most notably those of the balance of payments and the capital equipment of industry, are not completely new creations of the Second World War. To be properly understood, these problems, we are told, must be envisaged as currents of tendency whose direction can be traced quite clearly from the eighteen-seventies onwards. This reminder is a necessary one; but it is no less necessary to remember the difference in character and consequence between a gentle current and a wild cataract.

That still longer perspective which was sketched in the first chapter of this book may be recalled here both as a reminder that war economy has its theory and also that each particular war economy in its own particular time has characteristics peculiar to itself. Despite all the contrasts of technology and of economic magnitude between the wars of the Napoleonic Age and those of the twentieth century, there are some striking parallels between the situation of the United Kingdom in the earlier age and the situation of the United States in the later one. Each of these two countries, in its own fortunate time, was able to use the expansion of its exports as an instrument of war; each found itself, at the conclusion of war, in some degree compensated for its efforts and sacrifices by an immense enhancement of its comparative economic strength among the nations. But the United Kingdom in the twentieth century found itself in quite the opposite situation. The nation's struggle after the Second World War to overcome the consequences of an effort which had so heavily overtaxed its economic strength was bound to be a long one.

This book, however, is not deeply concerned with the consequences. Its theme is the effort.



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